

LEASE NO. GS-11P-LVA00632

BUILDING NO. VA0867ZZ

Global Lease
GSA TEMPLATE L100 (10/2021)

A. This Lease is made and entered into between

PS Business Parks, INC

(Lessor), whose principal place of business is 7927 Jones Branch Drive, Tysons, VA 22102-3322, and whose interest in the Property described herein is that of Fee Owner, and

The United States of America

(Government), acting by and through the designated representative of the General Services Administration (GSA), upon the terms and conditions set forth herein.

B. Witnesseth: The parties hereto, for the consideration hereinafter mentioned, covenant and agree as follows:

Lessor hereby leases to the Government the Premises described herein, being all or a portion of the Property located at

8380 Alban Road
Springfield, VA 22150-2338

and more fully described in Section 1 and Exhibit A, together with rights to the use of parking and other areas as set forth herein, to be used for such purposes as determined by GSA.

C. LEASE TERM

To Have and To Hold the said Premises with its appurtenances for the term beginning on **September 17, 2022** and continuing for a period of

15 Years Firm

subject to termination and renewal rights as may be hereinafter set forth.

In Witness Whereof, the parties to this Lease evidence their agreement to all terms and conditions set forth herein by their signatures below, to be effective as of the date of delivery of the fully executed Lease to the Lessor.

FOR THE LESSOR:

DocuSigned by:

Christopher Auth

F5FCCD872BDDA23

Christopher Auth

Name: _____

Title: Divisional Vice President

Entity: PS Business Parks, Inc.

Date: 7/14/2022

FOR THE GOVERNMENT:

DocuSigned by:

Santoni Graham

31CB25C15C2D466...

Santoni Graham

Name: _____

Title: Lease Contracting Officer

General Services Administration, Public Buildings Service

Date: 8/4/2022

WITNESSED FOR THE LESSOR BY:

DocuSigned by:

Edward Zaptin

B25DCE468AAC4DE

Edward Zaptin

Name: _____

Title: Regional VP

Date: 7/14/2022

The information collection requirements contained in this Solicitation/Contract, that are not required by the regulation, have been approved by the Office of Management and Budget pursuant to the Paperwork Reduction Act and assigned the OMB Control No. 3090-0163.

SECTION 1	THE PREMISES, RENT, AND OTHER TERMS	6
1.01	THE PREMISES (OCT 2016)	6
1.02	EXPRESS APPURTENANT RIGHTS (SEP 2013)	6
1.03	RENT AND OTHER CONSIDERATION (OCT 2020)	7
1.04	BROKER COMMISSION AND COMMISSION CREDIT (OCT 2016)	8
1.05	TERMINATION RIGHTS (OCT 2016)	8
1.06	RENEWAL RIGHTS (OCT 2016) INTENTIONALLY DELETED	8
1.07	DOCUMENTS INCORPORATED IN THE LEASE (OCT 2020)	8
1.08	TENANT IMPROVEMENT RENTAL ADJUSTMENT (OCT 2016)	8
1.09	TENANT IMPROVEMENT FEE SCHEDULE (OCT 2020)	9
1.10	BUILDING SPECIFIC AMORTIZED CAPITAL (SEP 2012)	9
1.11	BUILDING SPECIFIC AMORTIZED CAPITAL RENTAL ADJUSTMENT (SEP 2013)	9
1.12	PERCENTAGE OF OCCUPANCY FOR TAX ADJUSTMENT (OCT 2018)	9
1.13	REAL ESTATE TAX BASE (SEP 2013)	9
1.14	OPERATING COST BASE (OCT 2016)	9
1.15	RATE FOR ADJUSTMENT FOR VACANT LEASED PREMISES (SEP 2013)	9
1.16	HOURLY OVERTIME HVAC RATES (OCT 2016)	9
1.17	ADJUSTMENT FOR REDUCED SERVICES (OCT 2018)	10
1.18	BUILDING IMPROVEMENTS (MAR 2016)	10
1.19	HUBZONE SMALL BUSINESS CONCERNS ADDITIONAL PERFORMANCE REQUIREMENTS (MAR 2012) INTENTIONALLY DELETED	10
1.20	LESSOR'S UNIQUE ENTITY IDENTIFIER (OCT 2020)	10
SECTION 2	GENERAL TERMS, CONDITIONS, AND STANDARDS	11
2.01	DEFINITIONS AND GENERAL TERMS (OCT 2016)	11
2.02	AUTHORIZED REPRESENTATIVES (OCT 2016)	12
2.03	ALTERATIONS REQUESTED BY THE GOVERNMENT (OCT 2018)	12
2.04	WAIVER OF RESTORATION (OCT 2018)	12
2.05	PAYMENT OF BROKER (JUL 2011)	12
2.06	CHANGE OF OWNERSHIP/NOVATION (OCT 2020)	12
2.07	REAL ESTATE TAX ADJUSTMENT (JUN 2012)	13
2.08	ADJUSTMENT FOR VACANT PREMISES (OCT 2017)	14
2.09	OPERATING COSTS ADJUSTMENT (JUN 2012)	14
2.10	ADDITIONAL POST-AWARD FINANCIAL AND TECHNICAL DELIVERABLES (JUN 2012)	15
2.11	RELOCATION ASSISTANCE ACT (APR 2014) INTENTIONALLY DELETED	15
SECTION 3	CONSTRUCTION STANDARDS AND SHELL COMPONENTS	16
3.01	LABOR STANDARDS (OCT 2016) INTENTIONALLY DELETED	16
3.02	WORK PERFORMANCE (JUN 2012)	16
3.03	EXISTING FIT-OUT, SALVAGED, OR REUSED BUILDING MATERIAL (OCT 2019)	16
3.04	CONSTRUCTION WASTE MANAGEMENT (OCT 2019)	16
3.05	WOOD PRODUCTS (OCT 2019)	16
3.06	ADHESIVES AND SEALANTS (OCT 2019)	16
3.07	BUILDING SHELL REQUIREMENTS (OCT 2016)	17
3.08	RESPONSIBILITY OF THE LESSOR AND LESSOR'S ARCHITECT/ENGINEER (JUN 2012)	17
3.09	QUALITY AND APPEARANCE OF BUILDING (JUN 2012)	17
3.10	VESTIBULES (OCT 2020)	17
3.11	MEANS OF EGRESS (MAY 2015)	17
3.12	AUTOMATIC FIRE SPRINKLER SYSTEM (SEP 2013)	18
3.13	FIRE ALARM SYSTEM (SEP 2013)	18
3.14	ENERGY INDEPENDENCE AND SECURITY ACT (MAR 2016)	18
3.15	ELEVATORS (OCT 2020)	19
3.16	BUILDING DIRECTORY (APR 2014) INTENTIONALLY DELETED	19
3.17	FLAGPOLE (SEP 2013)	19
3.18	DEMOLITION (JUN 2012)	20
3.19	ACCESSIBILITY (FEB 2007)	20
3.20	CEILINGS (OCT 2019)	20
3.21	EXTERIOR AND COMMON AREA DOORS AND HARDWARE (SEP 2013)	20
3.22	DOORS: IDENTIFICATION (APR 2011)	20
3.23	WINDOWS (OCT 2020)	20
3.24	PARTITIONS: GENERAL (OCT 2019)	21
3.25	PARTITIONS: PERMANENT (OCT 2019)	21
3.26	INSULATION: THERMAL, ACOUSTIC, AND HVAC (OCT 2019)	21
3.27	WALL FINISHES – SHELL (SEP 2015)	21
3.28	PAINTING – SHELL (OCT 2019)	21
3.29	FLOORS AND FLOOR LOAD (OCT 2019)	21
3.30	FLOOR COVERING AND PERIMETERS – SHELL (SEP 2013)	22
3.31	MECHANICAL, ELECTRICAL, PLUMBING: GENERAL (APR 2011)	22
3.32	BUILDING SYSTEMS (APR 2011)	22

3.33	ELECTRICAL (OCT 2019)	22
3.34	ADDITIONAL ELECTRICAL CONTROLS (JUN 2012) INTENTIONALLY DELETED	22
3.35	PLUMBING (JUN 2012)	22
3.36	DRINKING FOUNTAINS (OCT 2018)	22
3.37	RESTROOMS (OCT 2020)	22
3.38	PLUMBING FIXTURES: WATER CONSERVATION (OCT 2019)	23
3.39	JANITOR CLOSETS (SEP 2015)	23
3.40	HEATING, VENTILATION, AND AIR CONDITIONING - SHELL (OCT 2020)	23
3.41	TELECOMMUNICATIONS: DISTRIBUTION AND EQUIPMENT (SEP 2015)	24
3.42	TELECOMMUNICATIONS: LOCAL EXCHANGE ACCESS (JUN 2012)	24
3.43	LIGHTING: INTERIOR AND PARKING - SHELL (OCT 2020)	24
3.44	ACOUSTICAL REQUIREMENTS (JUN 2012)	25
3.45	SECURITY FOR NEW CONSTRUCTION (OCT 2019) INTENTIONALLY DELETED	25
3.46	SEISMIC SAFETY FOR NEW CONSTRUCTION (OCT 2020) INTENTIONALLY DELETED	25
3.47	FIRE PROTECTION FOR NEW CONSTRUCTION (APR 2015) INTENTIONALLY DELETED	25
3.48	GREEN BUILDING RATING CERTIFICATION FOR NEW CONSTRUCTION (OCT 2016) INTENTIONALLY DELETED	25
3.49	GREEN BUILDING RATING CERTIFICATION FOR TENANT INTERIORS (OCT 2016) INTENTIONALLY DELETED	25
3.50	INDOOR AIR QUALITY DURING CONSTRUCTION (OCT 2020)	26
3.51	SYSTEMS COMMISSIONING (APR 2011)	26
3.52	DUE DILIGENCE AND NATIONAL ENVIRONMENTAL POLICY ACT REQUIREMENTS – LEASE (SEP 2014) INTENTIONALLY DELETED	26
3.53	NATIONAL HISTORIC PRESERVATION ACT REQUIREMENTS – LEASE (SEP 2014) INTENTIONALLY DELETED	27
3.54	DESIGN EXCELLENCE – LEASE (OCT 2016) INTENTIONALLY DELETED	27
SECTION 4 DESIGN, CONSTRUCTION, AND POST AWARD ACTIVITIES		28
4.01	SCHEDULE FOR COMPLETION OF SPACE (OCT 2020)	28
4.02	CONSTRUCTION DOCUMENTS (SEP 2012)	29
4.03	TENANT IMPROVEMENTS PRICE PROPOSAL (OCT 2020)	29
4.04	BUILDING SPECIFIC AMORTIZED CAPITAL (BSAC) PRICE PROPOSAL (SEP 2015)	29
4.05	GREEN LEASE SUBMITTALS (OCT 2019)	29
4.06	CONSTRUCTION SCHEDULE AND INITIAL CONSTRUCTION MEETING (OCT 2020)	30
4.07	PROGRESS REPORTS (OCT 2020)	30
4.08	CONSTRUCTION INSPECTIONS (SEP 2015)	30
4.09	ACCESS BY THE GOVERNMENT PRIOR TO ACCEPTANCE (SEP 2013) INTENTIONALLY DELETED	31
4.10	ACCEPTANCE OF SPACE AND CERTIFICATE OF OCCUPANCY (SEP 2015) INTENTIONALLY DELETED	31
4.11	LEASE TERM COMMENCEMENT DATE AND RENT RECONCILIATION (JUN 2012) INTENTIONALLY DELETED	31
4.12	AS-BUILT DRAWINGS (OCT 2019)	31
4.13	LIQUIDATED DAMAGES (JUN 2012) INTENTIONALLY DELETED	31
4.14	SEISMIC RETROFIT (SEP 2013) INTENTIONALLY DELETED	31
4.15	LESSOR'S PROJECT MANAGEMENT RESPONSIBILITIES (OCT 2020)	31
SECTION 5 TENANT IMPROVEMENT COMPONENTS		33
5.01	TENANT IMPROVEMENT REQUIREMENTS (OCT 2016)	33
5.02	TENANT IMPROVEMENT SPECIFICATIONS (SEP 2015) INTENTIONALLY DELETED	33
5.03	FINISH SELECTIONS (SEP 2015)	33
5.04	WINDOW COVERINGS (JUN 2012)	33
5.05	DOORS: SUITE ENTRY (OCT 2019)	33
5.06	DOORS: INTERIOR (OCT 2019)	33
5.07	DOORS: HARDWARE (SEP 2013)	34
5.08	DOORS: IDENTIFICATION (JUN 2012)	34
5.09	PARTITIONS: SUBDIVIDING (OCT 2020)	34
5.10	WALL FINISHES (OCT 2019)	34
5.11	PAINTING – TI (OCT 2019)	34
5.12	FLOOR COVERINGS AND PERIMETERS (OCT 2019)	34
5.13	HEATING AND AIR CONDITIONING (JUN 2012)	35
5.14	ELECTRICAL: DISTRIBUTION (SEP 2015)	35
5.15	TELECOMMUNICATIONS: DISTRIBUTION AND EQUIPMENT (JUN 2012)	35
5.16	TELECOMMUNICATIONS: LOCAL EXCHANGE ACCESS (AUG 2008)	35
5.17	DATA DISTRIBUTION (OCT 2020)	35
5.18	ELECTRICAL, TELEPHONE, DATA FOR SYSTEMS FURNITURE (OCT 2020)	36
5.19	LIGHTING: INTERIOR AND PARKING – TI (SEP 2015)	36
5.20	AUTOMATIC FIRE SPRINKLER SYSTEM - TI (OCT 2016)	36
SECTION 6 UTILITIES, SERVICES, AND OBLIGATIONS DURING THE LEASE TERM		37
6.01	PROVISION OF SERVICES, ACCESS, AND NORMAL HOURS (JUN 2012)	37
6.02	UTILITIES (APR 2011)	37
6.03	UTILITIES SEPARATE FROM RENTAL/BUILDING OPERATING PLAN (OCT 2020) INTENTIONALLY DELETED	37
6.04	UTILITY CONSUMPTION REPORTING (OCT 2016)	37
6.05	HEATING AND AIR CONDITIONING (OCT 2020)	37

6.06	OVERTIME HVAC USAGE (OCT 2020)	37
6.07	JANITORIAL SERVICES (JUL 2020)	38
6.08	SELECTION OF CLEANING PRODUCTS (OCT 2019)	38
6.09	SELECTION OF PAPER PRODUCTS (OCT 2019)	38
6.10	SNOW REMOVAL (OCT 2020)	39
6.11	MAINTENANCE AND TESTING OF SYSTEMS (SEP 2013)	39
6.12	MAINTENANCE OF PROVIDED FINISHES (OCT 2016)	39
6.13	ASBESTOS ABATEMENT (APR 2011)	39
6.14	ONSITE LESSOR MANAGEMENT (APR 2011)	39
6.15	IDENTITY VERIFICATION OF PERSONNEL (OCT 2020)	40
6.16	SCHEDULE OF PERIODIC SERVICES (OCT 2020)	40
6.17	LANDSCAPING (OCT 2019)	40
6.18	LANDSCAPE MAINTENANCE (APR 2011)	41
6.19	RECYCLING (JUN 2012)	41
6.20	RANDOLPH-SHEPPARD COMPLIANCE (SEP 2013)	41
6.21	SAFEGUARDING AND DISSEMINATION OF CONTROLLED UNCLASSIFIED INFORMATION (CUI) BUILDING INFORMATION (FEB 2020)	41
6.22	INDOOR AIR QUALITY (OCT 2019)	42
6.23	RADON IN AIR (OCT 2016)	43
6.24	RADON IN WATER (JUN 2012)	43
6.25	HAZARDOUS MATERIALS (SEP 2013)	43
6.26	MOLD (OCT 2020)	44
6.27	OCCUPANT EMERGENCY PLANS (OCT 2020)	44
6.28	FLAG DISPLAY (OCT 2016)	44
SECTION 7 ADDITIONAL TERMS AND CONDITIONS		45
7.01	SECURITY REQUIREMENTS (OCT 2016)	45
7.02	MODIFIED LEASE PARAGRAPHS (OCT 2016)	45
7.03	ADDENDUM TO GSA FORM 3517B, GENERAL CLAUSES, NO FEDERALLY ELECTED OFFICIALS TO BENEFIT (OCT 2018)	45
	INTENTIONALLY DELETED	45
7.04	CLEAR CEILING HEIGHT REQUIREMENTS (WAREHOUSE) (MAY 2014)	45
7.05	BAY WIDTH, BAY DEPTH, AND COLUMN SPACING REQUIREMENTS (WAREHOUSE) (MAY 2014)	45
7.06	BUILDING SHELL REQUIREMENTS (WAREHOUSE) (OCT 2016)	45
7.07	LOADING DOCKS—SHELL (WAREHOUSE) (MAY 2014)	45
7.08	FLOORS AND FLOOR LOAD—SHELL (WAREHOUSE) (OCT 2019)	46
7.09	ELECTRICAL—SHELL (WAREHOUSE) (OCT 2019)	47
7.10	DRINKING FOUNTAINS (WAREHOUSE) (OCT 2018)	47
7.11	LIGHTING: INTERIOR AND PARKING—SHELL (WAREHOUSE) (OCT 2020)	47
7.12	EMERGENCY POWER TO CRITICAL SYSTEMS (WAREHOUSE) (MAY 2014)	48
7.13	MECHANICAL AREAS AND BUILDING ROOFS (WAREHOUSE) (MAY 2014)	48
7.14	CEILINGS—TI (WAREHOUSE) (OCT 2019)	48
7.15	LIGHTING: INTERIOR AND PARKING—TI (WAREHOUSE) (MAY 2014)	48
7.16	LOADING DOCKS—TI (WAREHOUSE) (MAY 2014)	48
7.17	PORTABLE FIRE EXTINGUISHERS (WAREHOUSE) (MAY 2014)	48
7.18	TRASH DUMPSTER SERVICE – LESSOR PROVIDED (WAREHOUSE) (OCT 2016)	48
7.19	HEATING AND VENTILATION—SHELL (WAREHOUSE) (OCT 2021)	48

SECTION 1 THE PREMISES, RENT, AND OTHER TERMS

1.01 THE PREMISES (OCT 2016)

The Premises are described as follows:

- A. Office, Warehouse, and Related Space: **69,897** rentable square feet (RSF), yielding **65,572** ANSI/BOMA Office Area (ABOA) square feet (SF) of office, warehouse, and related Space located on the **First and Second** floors of the Building, as depicted on the floor plan(s) attached hereto as Exhibit **A**. **The warehouse-specific paragraphs are all included in Section 7 of the Lease.**
- B. Common Area Factor: The Common Area Factor (CAF), defined under Section 2 of the Lease, is established as **6.660** percent. This factor, rounded to the nearest whole percentage, shall be used for purposes of rental adjustments in accordance with the Payment Clause of the General Clauses.
- C. Unless otherwise noted, the Government accepts the Premises and tenant improvements in their existing condition, except where specifications or standards are contained elsewhere in this Lease. These standards include security improvements, Fire Protection and Life Safety requirements, ABAAS compliance, itmes listed under Section 1.18 of the Lease, as well as compliance with all local codes and ordinances. Such acceptance by the Government of existing Premises shall not relieve Lessor of continuing obligations for cleaning, janitorial, maintenance, repair, etc. as set forth in the Lease paragraphs and attached General Clauses.

1.02 EXPRESS APPURTENANT RIGHTS (SEP 2013)

The Government shall have the non-exclusive right to the use of Appurtenant Areas and shall have the right to post Rules and Regulations Governing Conduct on Federal Property, Title 41, CFR, Part 102-74, Subpart C within such areas. The Government will coordinate with Lessor to ensure signage is consistent with Lessor's standards. Appurtenant to the Premises and included in the Lease are rights to use the following:

- A. Parking: **60** parking spaces as depicted on the plan attached hereto as Exhibit **B**, reserved for the exclusive use of the Government, of which **0** shall be structured/inside parking spaces, and **60** shall be surface/outside parking spaces. In addition, the Lessor shall provide such additional parking spaces as required by the applicable code of the local government entity having jurisdiction over the Property.
- B. Delivery Ramps:
- (1) Any part of an accessible route with a slope greater than 1 foot rise in 20 feet shall be considered a ramp. Where ramps are necessary, they shall have a non-slip surface with a slope no greater than 1 foot rise in 12 feet. Ramps must have a minimum clear width of 3 feet with level landings at the top and bottom of each ramp run. Each landing shall be at least 5 feet in length and as wide as any ramp run leading into it. The maximum rise for any run shall be 30 inches. Intermediate landings for turning ramps shall measure a minimum of 5 feet by 5 feet.
 - (2) Lessor shall provide handrails complying with "HANDRAILS" (36 CFR 1191) on both sides of all ramps with a vertical rise greater than 6 inches. Ramps with drop-offs shall have curbs (minimum 2 inches high), walls, railings, or projecting surfaces. Lessor shall provide curb ramps wherever an accessible route crosses a curb. Curb ramps shall not interfere with walks or vehicular traffic. The maximum slope of a curb ramp shall be a 1-inch rise per 12-inch run. The maximum length of a curb ramp shall be 6 feet with a minimum width of 36 inches, exclusive of flared sides. If no other alternative is feasible, accessible platform lifts may be used in lieu of a ramp or elevator. Lifts shall have accessible controls and clearances, shall comply with applicable safety regulations, and should facilitate unassisted entry and exit.
- C. Antennas, Satellite Dishes, and Related Transmission Devices:
- (1) Space located on the roof of the Building sufficient in size for the installation and placement of telecommunications equipment,
 - (2) the right to access the roof of the Building, and
 - (3) use of all Building areas (e.g., chases, plenums, etc.) necessary for the use, operation, and maintenance of such telecommunications equipment at all times during the term of this Lease.
- D. Loading Docks. See "LOADING DOCKS SHELL WAREHOUSE" paragraph in Section 7 of this Lease.

1.03 RENT AND OTHER CONSIDERATION (OCT 2021)

A. The Government shall pay the Lessor annual rent, payable in monthly installments in arrears, at the following rates:

	FIRM TERM (9/17/2022 – 9/16/2037)
	ANNUAL RENT
SHELL RENT¹	\$1,776,781.74
OPERATING COSTS²	(b) (4)
TENANT IMPROVEMENTS RENT³	
BUILDING SPECIFIC AMORTIZED CAPITAL (BSAC)⁴	
PARKING⁵	\$ 36,000.00
TOTAL ANNUAL RENT⁶	\$2,298,494.74

¹Shell rent calculation:

(Firm Term) **\$25.42 (rounded)** per RSF multiplied by the RSF stated under Paragraph 1.01.

²Operating Costs rent calculation: (b) (4)

³Tenant Improvements of (b) (4)

⁴Building Specific Amortized Capital (BSAC) (b) (4)

⁵Parking costs described under sub-paragraph B below.

⁶Total Annual Rent does not reflect reduction for free rent (if applicable). See subparagraph C below.

B. Parking shall be provided at a rate of **\$36,000.00** per year for the sixty (60) spaces and is not subject to reduction based on usage.

C. The Lessor has offered free rent for the first **eight (8)** months of the Lease (free rent includes shell, operating, TI, BSAC and parking rent). Therefore, the first **eight (8)** months of the Lease shall be provided at no cost to the Government.

D. INTENTIONALLY DELETED

E. INTENTIONALLY DELETED

F. Rent is subject to adjustment based upon the final Tenant Improvement (TI) cost to be amortized in the rental rate, as agreed upon by the parties subsequent to the Lease Award Date.

G. Rent is subject to adjustment based on the final Building Specific Amortized Capital (BSAC) cost to be amortized in the rental rate, as agreed upon by the parties subsequent to the Lease Award Date.

H. If the Government leases the Premises for less than a full calendar month, then rent shall be prorated based on the actual number of days leased for that month.

I. Rent shall be paid to Lessor by electronic funds transfer (EFT) in accordance with the provisions of the General Clauses. Rent shall be payable using the EFT information contained in the System for Award Management (SAM). In the event the EFT information changes, the Lessor shall be responsible for providing the updated information to SAM. Failure by the Lessor to maintain an active registration in SAM may result in delay of rental payments until such time as the SAM registration is activated.

J. Lessor shall provide to the Government, in exchange for the payment of rental and other specified consideration, the following:

1. The leasehold interest in the Property described herein in the paragraph entitled "The Premises."

2. All costs, expenses and fees to perform the work required for acceptance of the Premises in accordance with this Lease, including all costs for labor, materials, and equipment, professional fees, contractor fees, attorney fees, permit fees, inspection fees, and similar such fees, and all related expenses.

3. Performance or satisfaction of all other obligations set forth in this Lease; and all services, utilities, and maintenance required for the proper operation of the Property, the Building, and the Premises in accordance with the terms of the Lease, including, but not limited to, all inspections, modifications, repairs, replacements, and improvements required to be made thereto to meet the requirements of this Lease.

K. For succeeding Leases with an incumbent Lessor where the Government is currently in occupancy and possession of the leased Premises and where the Lease requires the Lessor to perform alterations using either the TIA or BSAC, the amortized tenant improvement rent and/or BSAC rent will not commence until the alterations are complete and accepted by the Government. Upon acceptance of these improvements, the Government will commence payment of the tenant improvement and/or BSAC rent as stipulated under the Lease, in addition to payment of the tenant improvement and/or BSAC rent for the period starting from the Lease Term Commencement Date to the date of tenant improvements/BSAC acceptance by the Government (such rent payment will not include any additional interest). Alternatively, the Government may elect to re-amortize the tenant improvements/BSAC over the remaining Firm Term of the Lease, at the amortization rate stipulated in the Lease. In the event the Government does not use all the TIA or BSAC, then the rental payments will be adjusted in accordance with the provisions of the Lease (e.g., de-amortization).

1.04 BROKER COMMISSION AND COMMISSION CREDIT (OCT 2016)

A. **Public Properties** (Broker) is the authorized real estate Broker representing GSA in connection with this Lease transaction. The total amount of the Commission is (b) (4) and is earned upon Lease execution, payable according to the Commission Agreement signed between the Lessor and Broker. Only (b) (4) of the Commission will be payable to **Public Properties** with the remaining (b) (4), which is the Commission Credit, to be credited to the shell rental portion of the annual rental payments due and owing to fully recapture this Commission Credit. The reduction in shell rent shall commence with the first month of the rental payments and continue until the credit has been fully recaptured in equal monthly installments over the shortest time practicable. The commission is subject to change based on the total amount of TIA and BSAC used by the government. The final Commission and Commission Credit will be memorialized in a Lease Amendment.

B. Notwithstanding the "Rent and Other Consideration" paragraph of this Lease, the shell rental payments due and owing under this Lease shall be reduced to recapture fully this Commission Credit. The reduction in shell rent shall commence with the first month of the rental payments and continue as indicated in this schedule for adjusted Monthly Rent:

Month **9** Rental Payment (b) (4) minus prorated Commission Credit of (b) (4) equals (b) (4) adjusted **9th** Month's Rent.*

Month **10** Rental Payment (b) (4) minus prorated Commission Credit of (b) (4) equals (b) (4) adjusted **10th** Month's Rent.*

Month **11** Rental Payment (b) (4) minus prorated Commission Credit of (b) (4) equals (b) (4) adjusted **11th** Month's Rent.*

Month **12** Rental Payment (b) (4) minus prorated Commission Credit of (b) (4) equals (b) (4) adjusted **12th** Month's Rent.*

Month **13** Rental Payment (b) (4) minus prorated Commission Credit of (b) (4) equals (b) (4) adjusted **13th** Month's Rent.*

Month **14** Rental Payment (b) (4) minus prorated Commission Credit of (b) (4) equals (b) (4) adjusted **14th** Month's Rent.*

* Subject to change based on adjustments outlined under the paragraph "Rent and Other Consideration."

1.05 ~~TERMINATION RIGHTS (OCT 2016)~~ INTENTIONALLY DELETED

1.06 ~~RENEWAL RIGHTS (OCT 2016)~~ INTENTIONALLY DELETED

1.07 DOCUMENTS INCORPORATED IN THE LEASE (OCT 2020)

The following documents are attached to and made part of the Lease:

DOCUMENT NAME	NO. OF PAGES	EXHIBIT
FLOOR PLAN(S)	2	A
PARKING PLAN(S)	1	B
A/E DESIGN GUIDE FOR DOMESTIC FACILITIES	197	C
SECURITY REQUIREMENTS	13	D
GSA FORM 3517B GENERAL CLAUSES	17	E
552.270-33 FOREIGN OWNERSHIP AND FINANCING REPRESENTATION FOR HIGH-SECURITY LEASED SPACE	4	F
SMALL BUSINESS SUBCONTRACTING PLAN	17	G
FAR 52.204-24	4	H
GSA FORM 1217 – LESSOR ANNUAL COST STATEMENT	3	I

1.08 TENANT IMPROVEMENT RENTAL ADJUSTMENT (OCT 2016)

A. The Tenant Improvement Allowance (TIA) for purposes of this Lease is (b) (4) SF. The TIA is the amount that the Lessor shall make available for the Government to be used for TIs. Following acceptance of the Tenant Improvements by the Government, the total TIA will be amortized in the rent over the remaining firm term of the Lease at an annual interest rate of (b) (4). Any amount of the (b) (4) not utilized by the Government to complete tenant improvements during the first year shall not be available for the Government's use during the remaining term of the Lease.

B. The Government, at its sole discretion, shall make all decisions as to the use of the TIA. The Government may use all or part of the TIA.

C. The Government may elect to make lump sum payments for any or all work covered by the TIA. That part of the TIA amortized in the rent shall be reduced accordingly. At any time after occupancy and during the Firm Term of the Lease, the Government, at its sole discretion, may elect to pay lump sum for any part or all of the remaining unpaid amortized balance of the TIA. If the Government elects to make a lump sum payment for the TIA after occupancy, the payment of the TIA by the Government will result in a decrease in the rent according to the amortization rate over the Firm Term of the Lease.

D. If it is anticipated that the Government will spend more than the identified TIA, the Government may elect to:

1. Reduce the TI requirements;
2. Pay lump sum for the overage upon substantial completion in accordance with the "Acceptance of Space and Certificate of Occupancy" paragraph.

1.09 TENANT IMPROVEMENT FEE SCHEDULE (OCT 2020)

For pricing TI costs, the following rates shall apply for tenant improvements of the Space during the term of the Lease.

	INITIAL BUILD-OUT
ARCHITECT/ENGINEER (A/E) FEES (\$ PER ABOA SF OR % OF TI CONSTRUCTION COSTS)	(b) (4)
LESSOR'S PROJECT MANAGEMENT FEE (% OF TI CONSTRUCTION COSTS)	(b) (4)

1.10 BUILDING SPECIFIC AMORTIZED CAPITAL (SEP 2012)

For purposes of this Lease, the Building Specific Amortized Capital (BSAC) is (b) (4). The Lessor will make the total BSAC amount available to the Government, which will use the funds for security related improvements. Following acceptance of the BSAC Improvements by the Government, the total BSAC will be amortized in the rent over the remaining firm term of the Lease at an annual interest rate of (b) (4). Any amount of the (b) (4) BSAC not utilized by the Government to complete security improvements during the first year shall not be available for the Government's use during the remaining term of the Lease.

1.11 BUILDING SPECIFIC AMORTIZED CAPITAL RENTAL ADJUSTMENT (SEP 2013)

A. The Government, at its sole discretion, shall make all decisions about the use of the Building Specific Amortized Capital (BSAC). The Government may use all or part of the BSAC.

B. The Government may elect to make lump-sum payments for any work covered by the BSAC. The part of the BSAC amortized in the rent shall be reduced accordingly. At any time after occupancy and during the Firm Term of the Lease, the Government, at its sole discretion, may elect to pay a lump sum for any part or all of the remaining unpaid amortized balance of the BSAC. If the Government elects to make a lump-sum payment for the BSAC after occupancy, the payment of the BSAC by the Government will result in a decrease in the rent according to the amortization rate over the Firm Term of the Lease.

C. If it is anticipated that the Government will spend more than the BSAC identified above, the Government may elect to:

1. Reduce the security countermeasure requirements;
2. Pay a lump sum for the amount overage upon substantial completion in accordance with the "Acceptance of Space and Certificate of Occupancy" paragraph.

1.12 PERCENTAGE OF OCCUPANCY FOR TAX ADJUSTMENT (OCT 2021)

A. As of the Lease Award Date, the Government's Percentage of Occupancy, as defined in the "Real Estate Tax Adjustment" paragraph of this Lease is 100.00 percent. The Percentage of Occupancy is derived by dividing the total Government Space of 69,897 RSF by the total Building space of 69,897 RSF. The tax parcel number is 0993 01 0045.

B. All relevant tax adjustment documentation (e.g., copies of paid tax receipts, invoices) must be submitted online via the GSA Real Estate Tax Portal at [RET.GSA.GOV](https://ret.gsa.gov) or a successor portal.

1.13 REAL ESTATE TAX BASE (SEP 2013) INTENTIONALLY DELETED

1.14 OPERATING COST BASE (OCT 2016)

The parties agree, for the purpose of applying the paragraph titled "Operating Costs Adjustment," that the Lessor's base rate for operating costs shall be (b) (4).

1.15 RATE FOR ADJUSTMENT FOR VACANT LEASED PREMISES (SEP 2013)

In accordance with the paragraph entitled "Adjustment for Vacant Premises," if the Government fails to occupy or vacates the entire or any portion of the Premises prior to expiration of the term of the Lease, the operating costs paid by the Government as part of the rent shall be reduced by \$1.50 per ABOA SF of Space vacated by the Government.

1.16 HOURLY OVERTIME HVAC RATES (OCT 2016)

A. The following rates shall apply in the application of the paragraph titled "Overtime HVAC Usage:"

- \$ 0.00 per hour for the entire Space.

B. INTENTIONALLY DELETED

1.17 ADJUSTMENT FOR REDUCED SERVICES (OCT 2018) INTENTIONALLY DELETED

1.18 BUILDING IMPROVEMENTS (MAR 2016)

The Lessor shall complete the following required Building Improvements, as-part of this Lease; for each item in the list below it has been noted as whether the improvement is considered a shell improvement or a Tenant Improvement. All improvements shall be completed by the Lessor within a commercially reasonable period of time before or after lease commencement:

- A. Based on the completed roof condition report, repair the roof with TPO or PVC layered on top of existing roof. (SHELL)
- B. Replace VAV Boxes and Controls or retrofit to DVC; decision based on analysis of system with GSA notified. (SHELL)
- C. Renovate fifteen (15) bathrooms, many are single use. Renovation shall be based on Landlord's building standard methods, material, and finishes (provided in proposal). (SHELL)
- D. Complete MEP system review to ensure system meets lease standards. Report, which will be provided to the Government, includes surveys by MEP Engineers and field visit by electrician, plumber, and HVAC Tech. (SHELL)
- E. Label all electrical panels within the building. (SHELL)
- F. Complete the following improvements to ensure the building is ABAAS/ADA compliant. If other improvements are required to make the building ABAAS/ADA compliant those shall also be completed. (SHELL)
 - a. Automatic door openers for all ABAAS/ADA required doors (doors already ABAAS/ADA compliant are exempt).
 - b. Replace all water fountains with hi-lo fountain to include bottle filler.
- G. Improvements required to ensure building is Fire and Life Safety (FLS) compliant. This shall include a report to show the building is compliant or installation of a new alarm system to be compliant. (SHELL)
 - a. If the building is code compliant for Fire and Life Safety all FLS, improvements shall be TENANT IMPROVEMENT.
- H. Replace interior ceiling lights to meet Section 3.43 of the Lease. Lighting shall be high efficiency T-8, T-5, or LED light fixtures and installed at one fixture per 80 RSF (plus emergency lighting as required). (SHELL)
- I. Fire suppression improvements to ensure compliance with high pile storage requirements; improvements must result in permit, or other documentation required for high pile storage. Improvements may include sprinkler work, an additional fire pump, and fire pump couplings. (TENANT IMPROVEMENT)
- J. Repair or replace (at Lessor's sole decision) exterior lighting at building entrances to meet requirements in Section 3.43 of the Lease. (SHELL)
- K. Replace exterior entrance doors with new thermal storefront, insulated tinted glass panels, storefront doors with electrified panic hardware. Doors shall meet requirements in Section 3.21 of the Lease. (SHELL)
- L. Repave (includes milling, paving, and striping) the rear parking lot which is secure. (SHELL)
- M. Re-caulk and seal all windows to ensure they are weathertight and waterproof. (SHELL)
- N. Install shatter resistant window film on all exterior windows. (BSAC)
- O. Replace entire building acoustical ceiling tile system (ACT) so in new or like new condition. (SHELL)
- P. Spot fill and level warehouse areas (both main warehouse and IRM/S) in which the slab floor has been damaged; cover with epoxy or sealant to match existing. Work to be completed based on the building walkthrough on 1.31.22. (SHELL)
 - a. Work above and beyond what was identified during the walkthrough on 1.31.22 shall be TENANT IMPROVEMENTS.
- Q. Complete report on building water pressure. (SHELL)
- R. Repair two (2) existing dock levelers to like new condition. Work to include repairs to ramps and bumpers. (SHELL)
- S. Replace two (2) awnings outside of rear warehouse area. (SHELL)
- T. Install five (5) new canopies to cover rear steps and porches (similar to adjacent building). (SHELL)
- U. HVAC duct cleaning throughout space. (SHELL)
- V. Convert ceiling lights to energy efficient LED lights in welding room. (TENANT IMPROVEMENT)

1.19 ~~HUBZONE SMALL BUSINESS CONCERNS ADDITIONAL PERFORMANCE REQUIREMENTS (MAR 2012)~~ INTENTIONALLY DELETED**1.20 LESSOR'S UNIQUE ENTITY IDENTIFIER (OCT 2021)**

Lessor's Unique Entity Identifier (UEI)

UEI-DUNS: **609927202**

UEI-SAM: **YQLCN5D1WCQ8**

SECTION 2 GENERAL TERMS, CONDITIONS, AND STANDARDS

2.01 DEFINITIONS AND GENERAL TERMS (OCT 2016)

Unless otherwise specifically noted, all terms and conditions set forth in this Lease shall be interpreted by reference to the following definitions, standards, and formulas:

- A. Appurtenant Areas. Appurtenant Areas are defined as those areas and facilities on the Property that are not located within the Premises, but for which rights are expressly granted under this Lease, or for which rights to use are reasonably necessary or reasonably anticipated with respect to the Government's enjoyment of the Premises and express appurtenant rights.
- B. Broker. If GSA awarded this Lease using a contract real estate broker, Broker shall refer to GSA's broker.
- C. Building. Building(s) situated on the Property in which the Premises are located.
- D. Commission Credit. If GSA awarded this Lease using a Broker, and the Broker agreed to forego a percentage of its commission to which it is entitled in connection with the award of this Lease, the amount of this credit is referred to as the "Commission Credit."
- E. Common Area Factor. The "Common Area Factor" (CAF) is a conversion factor determined by the Building owner and applied by the owner to the ABOA SF to determine the RSF for the leased Space. The CAF is expressed as a percentage of the difference between the amount of rentable SF and ABOA SF, divided by the ABOA SF. For example, 11,500 RSF and 10,000 ABOA SF will have a CAF of 15% [(11,500 RSF - 10,000 ABOA SF)/10,000 ABOA SF]. For the purposes of this Lease, the CAF shall be determined in accordance with the applicable ANSI/BOMA standard for the type of space to which the CAF shall apply.
- F. Contract. "Contract" shall mean this Lease.
- G. Contractor. "Contractor" shall mean Lessor.
- H. Days. All references to "day" or "days" in this Lease shall mean calendar days, unless specified otherwise.
- I. FAR. All references to the FAR shall be understood to mean the Federal Acquisition Regulation, codified at 48 CFR Chapter 1.
- J. Firm Term/Non-Firm Term. The Firm Term is that part of the Lease term that is not subject to termination rights. The Non-Firm Term is that part of the Lease term following the end of the Firm Term.
- K. GSAR. All references to the GSAR shall be understood to mean the GSA supplement to the FAR, codified at 48 CFR Chapter 5.
- L. Lease Term Commencement Date. The date on which the lease term commences.
- M. Lease Award Date. The date the LCO executes the Lease and mails or otherwise furnishes written notification of the executed Lease to the successful Offeror (date on which the parties' obligations under the Lease begin).
- N. Premises. The Premises are defined as the total Office Area or other type of Space, together with all associated common areas, described in Section 1 of this Lease, and delineated by plan in the attached exhibit. Parking and other areas to which the Government has rights under this Lease are not included in the Premises.
- O. Property. Defined as the land and Buildings in which the Premises are located, including all Appurtenant Areas (e.g., parking areas) to which the Government is granted rights.
- P. Rentable Space or Rentable Square Feet (RSF). Rentable Space is the area for which a tenant is charged rent. It is determined by the Building owner and may vary by city or by building within the same city. The Rentable Space may include a share of Building support/common areas such as elevator lobbies, Building corridors, and floor service areas. Floor service areas typically include restrooms, janitor rooms, telephone closets, electrical closets, and mechanical rooms. The Rentable Space does not include vertical building penetrations and their enclosing walls, such as stairs, elevator shafts, and vertical ducts. Rentable Square Feet is calculated using the following formula for each type of Space (e.g., office, warehouse, etc.) included in the Premises: $ABOA\ SF\ of\ Space \times (1 + CAF) = RSF$.
- Q. Space. The Space shall refer to that part of the Premises to which the Government has exclusive use, such as Office Area, or other type of Space. Parking areas to which the Government has rights under this Lease are not included in the Space.
- R. Office Area. For the purposes of this Lease, Space shall be measured in accordance with the standard (Z65.1-1996) provided by American National Standards Institute/Building Owners and Managers Association (ANSI/BOMA) for Office Area, which means "the area where a tenant normally houses personnel and/or furniture, for which a measurement is to be computed." References to ABOA mean ANSI/BOMA Office Area.
- S. Working Days. Working Days shall mean weekdays, excluding Saturdays and Sundays and Federal holidays.

2.02 AUTHORIZED REPRESENTATIVES (OCT 2016)

Signatories to this Lease shall have full authority to bind their respective principals with regard to all matters relating to this Lease. No other persons shall be understood to have any authority to bind their respective principals, except to the extent that such authority may be explicitly delegated by notice to the other party, or to the extent that such authority is transferred by succession of interest. The Government shall have the right to substitute its Lease Contracting Officer (LCO) by notice, without an express delegation by the prior LCO.

2.03 ALTERATIONS REQUESTED BY THE GOVERNMENT (OCT 2018)

A. The Government may request the Lessor to provide alterations during the term of the Lease. Alterations will be ordered by issuance of a Lease Amendment, GSA Form 300, Order for Supplies or Services, or a tenant agency-approved form when specifically authorized to do so by the LCO. The General Services Administration Acquisition Manual ("GSAM") clause, 552.270-31, Prompt Payment, including its invoice requirements, shall apply to orders for alterations. All orders are subject to the terms and conditions of this Lease and may be placed by the LCO or a warranted contracting officer's representative (COR) in GSA or the tenant agency when specifically authorized to do so by the LCO, subject to the threshold limitation below.

B. Orders for alterations issued by an authorized COR are limited to no more than \$250,000 (LCOs are not subject to this threshold). This threshold will change according to future adjustments of the simplified acquisition threshold (see FAR 2.101). The LCO will provide the Lessor with a list of tenant agency officials authorized to place orders and will specify any limitations on the authority delegated to tenant agency officials. The tenant agency officials are not authorized to deal with the Lessor on any other matters.

C. Payments for alterations ordered by the tenant agency under the authorization described in sub-paragraph B will be made directly by the tenant agency placing the order.

2.04 WAIVER OF RESTORATION (OCT 2021)

Lessor shall have no right to require the Government to restore the Premises upon expiration or earlier termination (full or partial) of the Lease, and waives all claims against the Government for:

- a) waste, or,
- b) damages, or restoration arising from or related to:
 - (1) the Government's normal and customary use of the Premises during the term of the Lease (including any extensions thereof), as well as
 - (2) any initial or subsequent alteration to the Premises regardless of whether such alterations are performed by the Lessor or by the Government.

At its sole option, the Government may abandon property in the Space following expiration or earlier termination (full or partial) of the Lease, in which case the property will become the property of the Lessor and the Government will be relieved of any liability in connection therewith.

2.05 PAYMENT OF BROKER (OCT 2021)

If GSA awarded the Lease through its Broker, the Lessor shall pay GSA's Broker its portion of the commission according to the Commission Agreement signed between the Lessor and Broker. "Its portion of the commission" means the agreed-upon commission to GSA's Broker minus the Commission Credit specified in the Lease or Lease Amendment.

2.06 CHANGE OF OWNERSHIP/NOVATION (OCT 2021)

A. If during the term of the Lease, title to the Property is transferred or the Lessor changes its legal name, the Lessor and its successor shall comply with the requirements of FAR Subpart 42.12. If title is transferred, the Lessor shall notify the Government within five days of the transfer of title.

B. The Government and the Lessor may execute a Change of Name Agreement if the Lessor is changing only its legal name, and the Government's and the Lessor's respective rights and obligations remain unaffected.

C. If title to the Property is transferred, the Government, the original Lessor (Transferor), and the new owner or assignee (Transferee) shall execute a Novation Agreement providing for the transfer of Transferor's rights and obligations under the Lease to the Transferee. When executed on behalf of the Government, a Novation Agreement will be made part of the Lease via Lease Amendment.

D. In addition to all documents required by FAR 42.1204, the LCO may request additional information (e.g., copy of the deed, bill of sale, certificate of merger, contract, court decree, articles of incorporation, operation agreement, partnership certificate of good standing, etc.) from the Transferor or Transferee to verify the parties' representations regarding the transfer, and to determine whether the transfer of the Lease is in the Government's interest.

E. If the LCO determines that recognizing the Transferee as the Lessor will not be in the Government's interest, the Transferor shall remain fully liable to the Government for the Transferee's performance of obligations under the Lease, notwithstanding the transfer. Under no condition shall the Government be obligated to release the Transferor of obligations prior to (a) the rent commencement date; and (b) any amounts due and owing to the Government under the Lease that have been paid in full or completely set off against the rental payments due under the Lease.

F. As a condition for being recognized as the Lessor and entitlement to receiving rent, the Transferee must register in the System for Award Management (SAM) for purposes of "All Awards" (See FAR 52.232-33), and complete all required representations and certifications within SAM. In addition, for leases FSL III or above, the Transferee must also complete 552.270-33 Foreign Ownership and Financing Representation for High Security Leased Space. This representation must be completed annually.

G. If title to the Property is transferred, rent shall continue to be paid to the original Lessor, subject to the Government's rights as provided for in this Lease. The Government's obligation to pay rent to the Transferee shall commence on the effective date of the Lease Amendment incorporating the

Novation Agreement. The Lease Amendment will not be issued until the Government has received all information reasonably required by the LCO, the Government has determined that recognizing the Transferee as the Lessor is in the Government's interest (which determination will be prompt and not unreasonably withheld), and the Transferee has met all conditions specified in sub-paragraph F. The original Lessor must maintain an active registration in SAM until the Novation process is complete.

2.07 REAL ESTATE TAX ADJUSTMENT (JUN 2012)

A. Purpose: This paragraph provides for adjustment in the rent (tax adjustment) to account for increases or decreases in Real Estate Taxes for the Property after the establishment of the Real Estate Tax Base, as those terms are defined herein. Tax adjustments shall be calculated in accordance with this paragraph.

B. Definitions: The following definitions apply to the use of the terms within this paragraph:

Property is defined as the land and Buildings in which the Premises are located, including all Appurtenant Areas (e.g., parking areas to which the Government is granted rights).

Real Estate Taxes are those taxes that are levied upon the owners of real property by a Taxing Authority (as hereinafter defined) of a state or local Government on an ad valorem basis to raise general revenue for funding the provision of government services. The term excludes, without limitation, special assessments for specific purposes, assessments for business improvement districts, and/or community development assessments.

Taxing Authority is a state, commonwealth, territory, county, city, parish, or political subdivision thereof, authorized by law to levy, assess, and collect Real Estate Taxes.

Tax Year refers to the 12-month period adopted by a Taxing Authority as its fiscal year for assessing Real Estate Taxes on an annual basis.

Tax Abatement is an authorized reduction in the Lessor's liability for Real Estate Taxes below that determined by applying the generally applicable real estate tax rate to the Fully Assessed (as hereinafter defined) valuation of the Property.

Unadjusted Real Estate Taxes are the full amount of Real Estate Taxes that would be assessed for the Property for one full Tax Year without regard to the Lessor's entitlement to any Tax Abatements (except if such Tax Abatement came into effect after the date of award of the Lease), and not including any late charges, interest, or penalties. If a Tax Abatement comes into effect after the date of award of the Lease, "unadjusted Real Estate Taxes" are the full amount of Real Estate Taxes assessed for the Property for one full Tax Year, less the amount of such Tax Abatement, and not including any late charges, interest, or penalties.

Real Estate Tax Base is the unadjusted Real Estate Taxes for the first full Tax Year following the commencement of the Lease term. If the Real Estate Taxes for that Tax Year are not based upon a Full Assessment of the Property, then the Real Estate Tax Base shall be the Unadjusted Real Estate Taxes for the Property for the first full Tax Year for which the Real Estate Taxes are based upon a Full Assessment. Such first full Tax Year may be hereinafter referred to as the Tax Base Year. Alternatively, the Real Estate Tax Base may be an amount negotiated by the parties that reflects an agreed upon base for a Fully Assessed value of the Property.

The Property is deemed to be Fully Assessed (and Real Estate Taxes are deemed to be based on a Full Assessment) only when a Taxing Authority has, for the purpose of determining the Lessor's liability for Real Estate Taxes, determined a value for the Property taking into account the value of all improvements contemplated for the Property pursuant to the Lease, and issued to the Lessor a tax bill or other notice of levy wherein the Real Estate Taxes for the full Tax Year are based upon such Full Assessment. At no time prior to the issuance of such a bill or notice shall the Property be deemed Fully Assessed.

Percentage of Occupancy refers to that portion of the Property exclusively occupied or used by the Government pursuant to the Lease. For Buildings, the Percentage of Occupancy is determined by calculating the ratio of the RSF occupied by the Government pursuant to the Lease to the total RSF in the Building or Buildings so occupied and shall not take into account the Government's ancillary rights including, but not limited to, parking or roof space for antennas (unless facilities for such ancillary rights are separately assessed). This percentage shall be subject to adjustment to take into account increases or decreases for Space leased by the Government or for rentable space on the Property.

C. Adjustment for changes in Real Estate Taxes. After the Property is Fully Assessed, the Government shall pay its share of any increases and shall receive its share of any decreases in the Real Estate Taxes for the Property, such share of increases or decreases to be referred to herein as "tax adjustment." The amount of the tax adjustment shall be determined by multiplying the Government's Percentage of Occupancy by the difference between the current year Unadjusted Real Estate Taxes and the Real Estate Tax Base, less the portion of such difference not paid due to a Tax Abatement (except if a Tax Abatement comes into effect after the date of award of the Lease). If a Tax Abatement comes into effect after the date of award of the Lease, the amount of the tax adjustment shall be determined by multiplying the Government's Percentage of Occupancy by the difference between the current year Unadjusted Real Estate Taxes and the Real Estate Tax Base. The Government shall pay the tax adjustment in a single annual lump sum payment to the Lessor. In the event that this tax adjustment results in a credit owed to the Government, the Government may elect to receive payment in the form of a rental credit or lump sum payment.

If the Property contains more than one separately assessed parcel, then more than one tax adjustment shall be determined based upon the Percentage of Occupancy, Real Estate Tax Base, and Real Estate Taxes for each respective parcel.

After commencement of the Lease term, the Lessor shall provide to the LCO copies of all real estate tax bills for the Property, all documentation of Tax Abatements, credits, or refunds, if any, and all notices which may affect the assessed valuation of the Property, for the Tax Year prior to the commencement of the Lease Term, and all such documentation for every year following. Lessor acknowledges that the LCO shall rely on the completeness and accuracy of these submissions in order to establish the Real Estate Tax Base and to determine tax adjustments. The LCO may

memorialize the establishment of the Real Estate Tax Base by issuing a unilateral administrative lease amendment indicating the base year, the amount of the Real Estate Tax Base, and the Government's Percentage of Occupancy.

The Real Estate Tax Base is subject to adjustment when increases or decreases to Real Estate Taxes in any Tax Year are attributable to (a) improvements or renovations to the Property not required by this Lease, or (b) changes in net operating income for the Property not derived from this Lease. If either condition results in a change to the Real Estate Taxes, the LCO may re-establish the Real Estate Tax Base as the Unadjusted Real Estate Taxes for the Tax Year the Property is reassessed under such condition, less the amount by which the Unadjusted Real Estate Taxes for the Tax Year prior to reassessment exceeds the prior Real Estate Tax Base.

If this Lease includes any options to renew the term of the Lease, or be otherwise extended, the Real Estate Tax Base for determining tax adjustments during the renewal term or extension shall be the last Real Estate Tax Base established during the base term of the Lease.

If any Real Estate Taxes for the Property are retroactively reduced by a Taxing Authority during the term of the Lease, the Government shall be entitled to a proportional share of any tax refunds to which the Lessor is entitled, calculated in accordance with this Paragraph. Lessor acknowledges that it has an affirmative duty to disclose to the Government any decreases in the Real Estate Taxes paid for the Property during the term of the Lease. Lessor shall annually provide to the LCO all relevant tax records for determining whether a tax adjustment is due, irrespective of whether it seeks an adjustment in any Tax Year.

If the Lease terminates before the end of a Tax Year, or if rent has been suspended, payment for the real estate tax increase due because of this section for the Tax Year will be prorated based on the number of days that the Lease and the rent were in effect. Any credit due the Government after the expiration or earlier termination of the Lease shall be made by a lump sum payment to the Government or as a rental credit to any succeeding Lease, as determined in the LCO's sole discretion. Lessor shall remit any lump sum payment to the Government within 15 calendar days of payment or credit by the Taxing Authority to Lessor or Lessor's designee. If the credit due to the Government is not paid by the due date, interest shall accrue on the late payment at the rate established by the Secretary of the Treasury under Section 12 of the Contract Disputes Act of 1978, as amended (41 USC § 611), that is in effect on the day after the due date. The interest penalty shall accrue daily on the amount of the credit and shall be compounded in 30-day increments inclusive from the first day after the due date through the payment date. The Government shall have the right to pursue the outstanding balance of any tax credit using all such collection methods as are available to the United States to collect debts. Such collection rights shall survive the expiration of this Lease.

In order to obtain a tax adjustment, the Lessor shall furnish the LCO with copies of all paid tax receipts, or other similar evidence of payment acceptable to the LCO, and a proper invoice (as described in GSA Form 3517, General Clauses, 552.270-31, Prompt Payment) for the requested tax adjustment, including the calculation thereof. All such documents must be received by the LCO within 60 calendar days after the last date the real estate tax payment is due from the Lessor to the Taxing Authority without payment of penalty or interest. FAILURE TO SUBMIT THE PROPER INVOICE AND EVIDENCE OF PAYMENT WITHIN SUCH TIME FRAME SHALL CONSTITUTE A WAIVER OF THE LESSOR'S RIGHT TO RECEIVE A TAX ADJUSTMENT PURSUANT TO THIS PARAGRAPH FOR THE TAX YEAR AFFECTED.

Tax Appeals. If the Government occupies more than 50 percent of the Building by virtue of this and any other Government Lease(s), the Government may, upon reasonable notice, direct the Lessor to initiate a tax appeal, or the Government may elect to contest the assessed valuation on its own behalf or jointly on behalf of Government and the Lessor. If the Government elects to contest the assessed valuation on its own behalf or on behalf of the Government and the Lessor, the Lessor shall cooperate fully with this effort, including, without limitation, furnishing to the Government information necessary to contest the assessed valuation in accordance with the filing requirements of the Taxing Authority, executing documents, providing documentary and testimonial evidence, and verifying the accuracy and completeness of records. If the Lessor initiates an appeal at the direction of the Government, the Government shall have the right to approve the selection of counsel who shall represent the Lessor with regard to such appeal, which approval shall not be unreasonably withheld, conditioned or delayed, and the Lessor shall be entitled to a credit in the amount of its reasonable expenses in pursuing the appeal.

2.08 ADJUSTMENT FOR VACANT PREMISES (OCT 2017)

A. If the Government fails to occupy any portion of the leased Premises or vacates the Premises in whole or in part prior to expiration of the term of the Lease, the rental rate and the base for operating cost adjustments will be reduced using the figure specified in the "Rate for Adjustment for Vacant Leased Premises" paragraph of this Lease.

B. If no rate reduction has been established in this Lease, the rate will be reduced by that portion of the costs per ABOA SF of operating expenses not required to maintain the Space.

C. Said reduction shall occur after the Government gives 30 calendar days' prior notice to the Lessor and shall continue in effect until the Government occupies the vacant Premises or the Lease expires or is terminated.

2.09 OPERATING COSTS ADJUSTMENT (JUN 2012)

A. Beginning with the second year of the Lease and each year thereafter, the Government shall pay annual incremental adjusted rent for changes in costs for cleaning services, supplies, materials, maintenance, trash removal, landscaping, water, sewer charges, heating, electricity, and certain administrative expenses attributable to occupancy.

B. The amount of adjustment will be determined by multiplying the base rate by the annual percent of change in the Cost of Living Index. The percent change will be computed by comparing the index figure published for the month prior to the Lease Term Commencement Date with the index figure published for the month prior which begins each successive 12-month period. For example, a Lease which commences in June of 2005 would use the index published for May of 2005, and that figure would be compared with the index published for May of 2006, May of 2007, and so on, to determine the percent change. The Cost of Living Index will be measured by the Department of Labor revised Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W), U.S. city average, all items, (1982 to 1984 = 100) published by the Bureau of Labor Statistics. Payment will be

made with the monthly installment of fixed rent. Rental adjustments will be effective on the anniversary date of the Lease; however, payment of the adjusted rental rate will become due on the first workday of the second month following the publication of the Cost of Living Index for the month prior to the commencement of each 12-month period.

C. In the event of any decreases in the Cost of Living Index occurring during the term of the occupancy under the Lease, the rental amount will be reduced accordingly. The amount of such reductions will be determined in the same manner as increases in rent provided under this paragraph.

D. If the Government exercises an option to extend the Lease term at the same rate as that of the original term, the option price will be based on the adjustment during the original term. Annual adjustments will continue.

2.10 ADDITIONAL POST-AWARD FINANCIAL AND TECHNICAL DELIVERABLES (JUN 2012)

A. If the Lessor is a HUBZone small business concern (SBC) that did not waive the price evaluation preference, the Lessor shall provide a certification within 10 days after Lease award to the LCO (or representative designated by the LCO) that the Lessor was an eligible HUBZone SBC on the date of award. If it is determined within 20 days after award that a HUBZone SBC Offeror that has been awarded the Lease was not an eligible HUBZone SBC at the time of award, and the HUBZone SBC Lessor failed to provide the LCO with information regarding a change to its HUBZone eligibility prior to award, then the Lease shall be subject, at the LCO's discretion, to termination, and the Government will be relieved of all obligations to the Lessor in such an event and not be liable to the Lessor for any costs, claims or damages of any nature whatsoever.

B. Within **30** days after Lease award, the Lessor shall provide to the LCO (or representative designated by the LCO) evidence of:

1. A firm commitment of funds in an amount sufficient to perform the work.
2. The names of at least two proposed construction contractors, as well as evidence of the contractors' experience, competency, and performance capabilities with construction similar in scope to that which is required herein.
3. The license or certification to practice in the state where the Building is located from the individual(s) and/or firm(s) providing architectural and engineering design services.

C. The Government shall have the right to withhold approval of design intent drawings (DIDs) until the conditions specified in sub-paragraphs A and B have been satisfied.

D. Within ten (10) calendar days after the LCO issues the Notice To Proceed (NTP) for TI construction, the Lessor shall provide to the LCO evidence of:

1. Award of a construction contract for TIs with a firm completion date. This date must be in accordance with the construction schedule for TIs as described in the "Schedule for Completion of Space" paragraph of this Lease.
2. Issuance of required permits for construction of the TIs.

2.11 ~~RELOCATION ASSISTANCE ACT (APR 2011)~~ INTENTIONALLY DELETED

SECTION 3 CONSTRUCTION STANDARDS AND SHELL COMPONENTS

3.01 ~~LABOR STANDARDS (OCT 2016)~~ INTENTIONALLY DELETED**3.02 WORK PERFORMANCE (JUN 2012)**

All work in performance of this Lease shall be done by skilled workers or mechanics and shall be acceptable to the LCO. The LCO may reject the Lessor's workers 1) if such are unlicensed, unskilled, or otherwise incompetent, or 2) if such have demonstrated a history of either untimely or otherwise unacceptable performance in connection with work carried out in conjunction with either this contract or other government or private contracts.

3.03 EXISTING FIT-OUT, SALVAGED, OR REUSED BUILDING MATERIAL (OCT 2019)

A. Items and materials existing in the Premises, or to be removed from the Premises during the demolition phase, are eligible for reuse in the construction phase of the project. The reuse of items and materials is preferable to recycling them; however, items considered for reuse shall be in refurbished condition and shall meet the quality standards set forth by the Government in this Lease. In the absence of definitive quality standards, the Lessor is responsible to confirm that the quality of the item(s) in question shall meet or exceed accepted industry or trade standards for first quality commercial grade applications.

B. Unless waived by the LCO, the Lessor shall submit a reuse plan for leases 10,000 RSF or greater. The Government will not pay for existing fixtures and other TIs accepted in place. However, the Government will reimburse the Lessor, as part of the TIA, the costs to repair or improve such fixtures or improvements identified on the reuse plan and approved by the LCO.

3.04 CONSTRUCTION WASTE MANAGEMENT (OCT 2021)

For leases 10,000 RSF or greater, the requirements below apply:

A. Recycling construction waste is mandatory for initial space alterations for TIs and subsequent alterations under the Lease.

B. SUBMITTAL REQUIREMENT: Prior to construction commencement, a proposed plan following industry standards to recycle construction waste. The construction waste management plan shall quantify material diversion goals and maximize the materials to be recycled and/or salvaged (at least 50 percent) from construction, demolition, and packaging debris. Where the small quantity of material, the extraordinarily complex nature of the waste disposal method, or prohibitive expense for recycling would represent a genuine hardship, the Government, upon written request of the Lessor and approval of the LCO, may permit alternative means of disposal.

C. The Lessor shall recycle the following items during both the demolition and construction phases of the project, subject to economic evaluation and feasibility: Ceiling grid and tile, light fixtures, including proper disposal of any transformers, ballasts, and fluorescent light bulbs, duct work and HVAC equipment, wiring and electrical equipment, aluminum and/or steel doors and frames, hardware, drywall, steel studs, carpet, carpet backing, and carpet padding, wood, insulation, cardboard packaging, pallets, windows and glazing materials, all miscellaneous metals (as in steel support frames for filing equipment), and all other finish and construction materials.

D. If any waste materials encountered during the demolition or construction phase are found to contain lead, asbestos, polychlorinated biphenyls (PCBs) (such as fluorescent lamp ballasts), or other harmful substances, they shall be handled and removed in accordance with Federal and state laws and requirements concerning hazardous waste.

E. In addition to providing "one time" removal and recycling of large scale demolition items such as carpeting or drywall, the Lessor shall provide continuous facilities for the recycling of incidental construction waste during the initial construction.

F. Construction materials recycling records shall be maintained by the Lessor and shall be accessible to the LCO. Records shall include materials recycled or land-filled, quantity, date, and identification of hazardous wastes.

3.05 WOOD PRODUCTS (OCT 2019)

A. Particle board, strawboard, and plywood materials used shall be free of formaldehyde or sufficiently aged prior to use such that indoor air levels in the finished leased space shall not exceed 0.016 parts per million (ppm) of formaldehyde.

B. All materials comprised of combustible substances, such as wood plywood and wood boards, shall be treated with fire retardant chemicals by a pressure impregnation process or other methods that treats the materials throughout as opposed to surface treatment.

C. For leases 10,000 RSF or greater, new installations of wood products shall not contain wood from endangered wood species, as listed by the Convention on International Trade in Endangered Species. The list of species can be found at [HTTP://WWW.WOOD-DATABASE.COM/WOOD-ARTICLES/RESTRICTED-AND-ENDANGERED-WOOD-SPECIES/](http://www.wood-database.com/wood-articles/restricted-and-endangered-wood-species/) or [HTTPS://WWW.FWS.GOV/INTERNATIONAL/PLANTS/CURRENT-CITES-LISTINGS-OF-TREE-SPECIES.HTML](https://www.fws.gov/international/plants/current-cites-listings-of-tree-species.html). In addition, the Lessor is encouraged to use independently certified forest products. For information on certification and certified wood products, refer to the Forest Stewardship Council United States ([HTTPS://US.FSC.ORG/EN-US](https://us.fsc.org/en-us)), or the Sustainable Forestry Initiative ([HTTP://WWW.SFIPROGRAM.ORG/](http://www.sfiprogram.org/)).

3.06 ADHESIVES AND SEALANTS (OCT 2019)

A. All adhesives employed (including, but not limited to, adhesives for carpet, carpet tile, plastic laminate, wall coverings, adhesives for wood, or sealants) shall meet the requirements of the manufacturer of the products adhered or involved. The Lessor shall use adhesives and sealants with no heavy metals, and that do not result in indoor air levels above 0.016 parts per million (ppm) of formaldehyde. Adhesives and other materials used for the installation of carpets shall be limited to those having a flash point of 140 degrees F or higher.

B. For leases 10,000 RSF or greater, the Lessor is encouraged to use applicable environmentally preferable criteria that are recommended in the Green Procurement Compilation at [HTTPS://SFTOOL.GOV/GREENPROCUREMENT](https://SFTOOL.GOV/GREENPROCUREMENT) and <https://sftool.gov/greenprocurement/green-products/8/miscellaneous/1238/adhesives/0>.

3.07 BUILDING SHELL REQUIREMENTS (OCT 2016)

A. The Building Shell shall be designed, constructed, and maintained in accordance with the standards set forth herein and completed prior to acceptance of Space. For pricing, fulfillment of all requirements not specifically designated as TIs, Building Specific Amortized Capital, Operating Costs, or other rent components as indicated shall be deemed included in the Shell Rent.

B. Base structure and Building enclosure components shall be complete. All common areas accessible by the Government, such as lobbies, fire egress corridors and stairwells, elevators, garages, and service areas, shall be complete. Restrooms shall be complete and operational. All newly installed Building shell components, including but not limited to, heating, ventilation, and air conditioning (HVAC), electrical, ceilings, sprinklers, etc., shall be furnished, installed, and coordinated with TIs. Circulation corridors are provided as part of the base Building only on multi-tenanted floors where the corridor is common to more than one tenant. On single tenant floors, only the fire egress corridor(s) necessary to meet code is provided as part of the shell.

C. The Building Shell rental rate shall also include, but is not limited to, costs included listed under Section II of GSA Form 1217, Lessor's Annual Cost Statement, including insurance, taxes, lease commission and management, in addition to profit, reserve costs and loan financing for the Building.

3.08 RESPONSIBILITY OF THE LESSOR AND LESSOR'S ARCHITECT/ENGINEER (JUN 2012)

A. The Lessor shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and other services furnished by the Lessor under this contract. The Lessor shall, without additional compensation, correct or revise any errors or deficiencies in its designs, drawings, specifications, or other services.

B. THE LESSOR REMAINS SOLELY RESPONSIBLE FOR DESIGNING, CONSTRUCTING, OPERATING, AND MAINTAINING THE LEASED PREMISES IN FULL ACCORDANCE WITH THE REQUIREMENTS OF THE LEASE. The Government retains the right to review and approve many aspects of the Lessor's design, including without limitation, review of the Lessor's design and construction drawings, shop drawings, product data, finish samples, and completed base building and TI construction. Such review and approval is intended to identify potential design flaws, to minimize costly misdirection of effort, and to assist the Lessor in its effort to monitor whether such design and construction comply with applicable laws and satisfy all Lease requirements.

C. Neither the Government's review, approval or acceptance of, nor payment through rent of the services required under this contract, shall be construed to operate as a waiver of any rights under this contract or of any cause of action arising out of the performance of this contract, and the Lessor shall be and remain liable to the Government in accordance with applicable law for all damages to the Government caused by the Lessor's negligent performance of any of the services required under this Lease.

D. Design and construction and performance information is contained throughout several of the documents which comprise this Lease. The Lessor shall provide to space planners, architects, engineers, construction contractors, etc., all information required whether it is found in this Lease, special requirements and attachments, price lists, or design intent drawings. Reliance upon one of these documents to the exclusion of any other may result in an incomplete understanding of the scope of the work to be performed and/or services to be provided.

3.09 QUALITY AND APPEARANCE OF BUILDING (JUN 2012)

The Building in which the Premises are located shall be designed, built and maintained in good condition and in accordance with the Lease requirements. If not new or recent construction, the Building shall have undergone by occupancy, modernization, or adaptive reuse for office space with modern conveniences. The Building shall be compatible with its surroundings. Overall, the Building shall project a professional and aesthetically pleasing appearance including an attractive front and entrance way.

3.10 VESTIBULES (OCT 2020)

A. Vestibules shall be provided at public entrances wherever entry to the Space is directly from the outside. In the event of negative air pressure conditions, provisions shall be made for equalizing air pressure. For measurement purposes, vestibules are considered building support space and not ABOA.

B. The Lessor shall provide permanent entryway systems (such as grilles or grates) to control dirt and particulates from entering the Building at all primary exterior entryways.

3.11 MEANS OF EGRESS (MAY 2015)

A. Prior to occupancy, the Premises and any parking garage areas shall meet or will be upgraded to meet, either the applicable egress requirements in the National Fire Protection Association, Life Safety Code (NFPA 101), or the International Code Council, International Building Code (IBC), each current as of the Lease Award Date, or use an alternative approach or method that achieves an equivalent level of safety deemed acceptable by the Government.

- B. The Space shall have unrestricted access to a minimum of two remote exits on each floor of Government occupancy.
- C. Interlocking or scissor stairs located on the floor(s) where Space is located shall only count as one exit stair.
- D. A fire escape located on the floor(s) where Space is located shall not be counted as an approved exit stair.
- E. Doors shall not be locked in the direction of egress unless equipped with special locking hardware in accordance with requirements of NFPA 101 or the IBC.

3.12 AUTOMATIC FIRE SPRINKLER SYSTEM (SEP 2013)

- A. Any portion of the Space located below-grade, including parking garage areas, and all areas in a Building referred to as "hazardous areas" (defined in National Fire Protection Association (NFPA) 101) that are located within the entire Building (including non-Government areas) shall be protected by an automatic fire sprinkler system or an equivalent level of safety.
- B. For Buildings in which any portion of the Space is on or above the sixth floor, then, at a minimum, the Building up to and including the highest floor of Government occupancy shall be protected by an automatic fire sprinkler system or an equivalent level of safety.
- C. For Buildings in which any portion of the Space is on or above the sixth floor, and lease of the Space will result, either individually or in combination with other Government Leases in the Building, in the Government leasing 35,000 or more ANSI/BOMA Office Area SF of Space in the Building, then the entire Building shall be protected throughout by an automatic fire sprinkler system or an equivalent level of safety.
- D. Automatic fire sprinkler system(s) shall be installed in accordance with the requirements of NFPA 13, Standard for the Installation of Sprinkler Systems that was in effect on the actual date of installation.
- E. Automatic fire sprinkler system(s) shall be maintained in accordance with the requirements of NFPA 25, Standard for the Inspection, Testing, and Maintenance of Water-based Fire Protection Systems (current as of the Lease Award Date).
- F. "Equivalent level of safety" means an alternative design or system (which may include automatic fire sprinkler systems), based upon fire protection engineering analysis, which achieves a level of safety equal to or greater than that provided by automatic fire sprinkler systems.

3.13 FIRE ALARM SYSTEM (SEP 2013)

- A. A Building-wide fire alarm system shall be installed in the entire Building in which any portion of the Space is located on the 3rd floor or higher.
- B. The fire alarm system shall be installed in accordance with the requirements of NFPA 72, National Fire Alarm and Signaling Code, that was in effect on the actual date of installation.
- C. The fire alarm system shall be maintained in accordance with the requirements of NFPA 72, National Fire Alarm and Signaling Code (current as of the Lease Award Date).
- D. The fire alarm system shall transmit all fire alarm signals to the local fire department via any of the following means: directly to the local fire department, to the (911) public communications center, to a central station, to a remote supervising station, or to a proprietary supervising station.
- E. If the Building's fire alarm control unit is over 25 years old as of the date of award of this Lease, Lessor shall install a new fire alarm system in accordance with the requirements of NFPA 72, National Fire Alarm and Signaling Code (current as of the Lease Award Date), prior to Government acceptance and occupancy of the Space.

3.14 ENERGY INDEPENDENCE AND SECURITY ACT (MAR 2016)

A. Energy-related Requirements:

1. The Energy Independence and Security Act (EISA) establishes the following requirements for Government Leases in Buildings that have not earned the ENERGY STAR® Label conferred by the Environmental Protection Agency (EPA) within one year prior to the due date for final proposal revisions ("most recent year").
2. If this Lease was awarded under any of EISA's Section 435 statutory exceptions, the Lessor shall either:
 - a. Earn the ENERGY STAR® Label prior to acceptance of the Space (or not later than one year after the Lease Award Date of a succeeding or superseding Lease); or
 - b.
 - (i) Complete energy efficiency and conservation improvements if any, agreed to by Lessor in lieu of earning the ENERGY STAR® Label prior to acceptance of the Space (or not later than one year after the Lease Award Date of a succeeding or superseding Lease); and
 - (ii) Obtain and publicly disclose the Building's current ENERGY STAR® score (using EPA's Portfolio Manager tool), unless the Lessor cannot access whole building utility consumption data, or there is no building category within Portfolio Manager to benchmark against, including spaces—
 - I. That are located in States with privacy laws that provide that utilities shall not provide such aggregated information to multitenant building owners; and
 - II. For which tenants do not provide energy consumption information to the commercial building owner in response to a request from the building owner. (A Federal agency that is a tenant of the space shall provide

- to the building owner, or authorize the owner to obtain from the utility, the energy consumption information of the space for the benchmarking and disclosure required by this subparagraph D).
- III. That cannot be benchmarked (scored) using EPA's Portfolio Manager tool because of excessive vacancy; in which case Lessor agrees to obtain the score and publicly disclose it within 120 days of the eligibility to obtain a score using the EPA Portfolio Manager tool.

Note: "public disclosure" means posting the Energy Star® score on state or local websites in those areas that have applicable disclosure mandates and reporting the score to the Government via Portfolio Manager. In the absence of an applicable state or local disclosure mandate, Lessor shall either generate and display the Energy Star® score in a public space at the building location or post the score on Lessor's or Lessor's Parent/Affiliate website.

3. If this Lease was awarded to a Building to be built or to a Building predominantly vacant as of the due date for final proposal revisions and was unable to earn the ENERGY STAR® label for the most recent year (as defined above) due to insufficient occupancy, but was able to demonstrate sufficient evidence of capability to earn the ENERGY STAR® label, then Lessor must earn the ENERGY STAR® label within 18 months after occupancy by the Government.

4. The Lessor is encouraged to purchase at least 50 percent of the Government tenant's electricity from renewable sources.

B. Hydrology-related Requirements:

1. Per EISA Section 438, the sponsor of any development or redevelopment project involving a Federal facility with a footprint that exceeds 5,000 square feet shall use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the Property with regard to the temperature, rate, volume, and duration of flow. If the Lessor proposes to satisfy the Government's space requirements through a development or redevelopment project, and the Government will be the sole or predominant tenant such that any other use of the Property will be functionally or quantitatively incidental to the Government's use, the Lessor is required to implement hydrology maintenance and restoration requirements as required by EISA Section 438.

a. For the purposes of applying EISA Section 438 in this Lease, "sponsor" shall mean "Lessor", and "exceeds 5,000 square feet" shall mean construction that disturbs 5,000 square feet or more of land area at the Property or on adjoining property to accommodate the Government's requirements, or at the Property for whatever reason. Information regarding implementation of the hydrology maintenance and restoration requirements can be found at: <http://www.epa.gov/greeningepa/technical-guidance-implementing-stormwater-runoff-requirements-federal-projects>

b. Lessor is required to implement these hydrology maintenance and restoration requirements to the maximum extent technically feasible, prior to acceptance of the Space, (or not later than one year after the Lease Award Date or Lease Term Commencement Date, whichever is later, of a succeeding or superseding Lease). Additionally, this Lease requires EISA Section 438 storm water compliance not later than one year from the date of any applicable disturbance (as defined in EISA Section 438) of more than 5,000 square feet of ground area if such disturbance occurs during the term of the Lease if the Government is the sole or predominant tenant. In the event the Lessor is required to comply with EISA Section 438, Lessor shall furnish the Government, prior to the filing for permits for the associated work, with a certification from Lessor's engineer that the design meets the hydrology maintenance and restoration requirements of EISA Section 438.

3.15 ELEVATORS (OCT 2020)

A. The Lessor shall provide suitable passenger elevator and, when required by the Government, freight elevator service to any of the Premises not having ground level access. Service shall be available during the normal hours of operation specified in the in this Lease. However, one passenger elevator and, when required by the Government, one freight elevator shall be available at all times for Government use. When a freight elevator is required by the Government, it shall be accessible to the loading areas. When possible, the Government shall be given 24-hour advance notice if the service is to be interrupted for more than 1-1/2 hours. Normal service interruption shall be scheduled outside of the Government's normal working hours. The Lessor shall also use best efforts to minimize the frequency and duration of unscheduled interruptions.

B. Code: Elevators shall conform to the requirements of the American Society of Mechanical Engineers ASME A17.1/CSA B44, Safety Code for Elevators and Escalators that were in effect based on the elevator installation date code year. Elevators shall be provided with Phase I emergency recall operation and Phase II emergency in-car operation in accordance with ASME A17.1/CSA B44. Fire alarm initiating devices (e.g., smoke detectors) used to initiate Phase I emergency recall operation shall be installed in accordance with the requirements of NFPA 72, National Fire Alarm and Signaling Code. The elevators shall be inspected and maintained in accordance with the current edition of the ASME A17.2, Inspector's Manual for Elevators. Except for the reference to ASME A17.1 in ABAAS, Section F105.2.2, all elevators must meet ABAAS requirements for accessibility in Sections 407, 408, and 409 of ABAAS.

C. Safety Systems: Elevators shall be equipped with telephones or other two-way emergency communication systems. The system used shall be marked and shall reach an emergency communication location staffed 24 hours per day, 7 days per week.

D. Speed: The passenger elevators shall have a capacity to transport in 5 minutes 15 percent of the normal population of all upper floors (based on 150 SF per person). Further, the dispatch interval between elevators during the up-peak demand period shall not exceed 35 seconds.

E. Interior Finishes: Elevator cab walls shall be hardwood, marble, granite, or an equivalent pre-approved by the LCO. Elevator cab floors shall be marble, granite, terrazzo, or an equivalent pre-approved by the LCO.

3.16 ~~BUILDING DIRECTORY (APR 2024)~~ INTENTIONALLY DELETED

3.17 FLAGPOLE (SEP 2013)

If the Government is the sole occupant of the Building, a flagpole shall be provided at a location to be approved by the LCO. The flag of the United States of America will be provided by the Lessor, as part of shell rent, and replaced at all times during the Lease term when showing signs of wear.

3.18 DEMOLITION (JUN 2012)

The Lessor shall remove existing abandoned electric, telephone, and data cabling and devices, as well as any other improvements or fixtures in place to accommodate the Government's requirements. Any demolition of existing improvements that is necessary to satisfy the Government's layout shall be done at the Lessor's expense.

3.19 ACCESSIBILITY (FEB 2007)

The Building, leased Space, and areas serving the leased Space shall be accessible to persons with disabilities in accordance with the Architectural Barriers Act Accessibility Standard (ABAAS), Appendices C and D to 36 CFR Part 1191 (ABA Chapters 1 and 2, and Chapters 3 through 10). To the extent the standard referenced in the preceding sentence conflicts with local accessibility requirements, the more stringent shall apply.

3.20 CEILINGS (OCT 2019)

A complete acoustical ceiling system (which includes grid and lay-in tiles or other Building standard ceiling system as approved by the LCO) throughout the Space and Premises shall be required. The acoustical ceiling system shall be furnished, installed, and coordinated with TIs.

A. Ceilings shall be at a minimum 8 feet and 0 inches and no more than 12 feet and 0 inches measured from floor to the lowest obstruction. Areas with raised flooring shall maintain these ceiling-height limitations above the finished raised flooring. Bulkheads and hanging or surface mounted light fixtures which impede traffic ways shall be avoided. Ceilings shall be uniform in color and appearance throughout the Space, with no obvious damage to tiles or grid.

B. Prior to closing the ceiling, the Lessor shall coordinate with the Government for the installation of any items above the ceiling.

C. Should the ceiling be installed in the Space prior to construction of the TIs, then the Lessor shall be responsible for all costs in regard to the disassembly, storage during construction, and subsequent re-assembly of any of the ceiling components which may be required to complete the TIs. The Lessor shall also bear the risk for any damage to the ceiling or any components thereof during the construction of the TIs.

D. Ceilings shall be a flat plane in each room and shall be suspended and finished as follows unless an alternate equivalent is pre-approved by the LCO:

1. Restrooms. Plastered or spackled and taped gypsum board.
2. Offices and conference rooms. Mineral and acoustical tile or lay in panels with textured or patterned surface and tegular edges or an equivalent pre-approved by the LCO. For leases 10,000 RSF or greater, newly installed tiles or panels shall meet applicable, statutory environmentally preferable criteria related to biobased content as outlined under the Green Procurement Compilation at <https://sftool.gov/greenprocurement> and <https://sftool.gov/greenprocurement/green-products/3/building-finishes/1732/acoustical-ceiling-tiles/0?addon=False>.
3. Corridors and eating/galley areas. Plastered or spackled and taped gypsum board or mineral acoustical tile.

3.21 EXTERIOR AND COMMON AREA DOORS AND HARDWARE (SEP 2013)

A. Exterior Building doors and doors necessary to the lobbies, common areas, and core areas shall be required. This does not include suite entry or interior doors specific to TIs.

B. Exterior doors shall be weather tight and shall open outward. Hinges, pivots, and pins shall be installed in a manner which prevents removal when the door is closed and locked. These doors shall have a minimum clear opening of 32" clear wide x 80" high (per leaf). Doors shall be heavy duty, flush, (1) hollow steel construction, (2) solid core wood, or (3) insulated tempered glass. As a minimum requirement, hollow steel doors shall be fully insulated, flush, #16-gauge hollow steel. Solid-core wood doors and hollow steel doors shall be at least 1-3/4 inches thick. Door assemblies shall be of durable finish and shall have an aesthetically pleasing appearance acceptable to the LCO. The opening dimensions and operations shall conform to the governing building, fire safety, accessibility, and energy codes and/or requirements. Fire door assemblies shall be listed and labeled. Labels on fire door assemblies shall be maintained in a legible condition. Fire door assemblies and their accompanying hardware, including frames and closing devices shall be installed in accordance with the requirements of NFPA 80, Standard for Fire Doors and Other Opening Protectives.

C. Exterior doors and all common area doors shall have door handles or door pulls with heavyweight hinges. All doors shall have corresponding doorstops (wall or floor mounted) and silencers. All public use doors and restroom doors shall be equipped with kick plates. All doors shall have automatic door closers. All Building exterior doors shall have locking devices installed to reasonably deter unauthorized entry.

3.22 DOORS: IDENTIFICATION (APR 2011)

All signage required in common areas unrelated to tenant identification shall be provided and installed by the Lessor.

3.23 WINDOWS (OCT 2020)

A. Office Space shall have windows in each exterior bay unless waived by the LCO.

B. All exterior window assemblies shall be weather resistant and water tight. Operable windows that open shall be equipped with secure latches. Off-street, ground-level windows and those accessible from adjacent roofs and other structures that can be opened must be fitted with a secure latch. Windows intended for use as a secondary means of egress must be openable from the egress side (e.g., inside) of the Building without the use of a key, tool, or special knowledge or effort for operation from the egress side.

3.24 PARTITIONS: GENERAL (OCT 2019)

A. Partitions in public areas shall be marble, granite, hardwood, or drywall covered with durable wall covering or high performance coating, or equivalent pre-approved by the LCO.

B. For leases 10,000 RSF or greater where the Government is a sole tenant of the Building, the Lessor is encouraged to use materials for newly installed gypsum board meeting applicable environmentally preferable criteria that are recommended in the Green Procurement Compilation at [HTTPS://SFTOOL.GOV/GREENPROCUREMENT](https://SFTOOL.GOV/GREENPROCUREMENT) and <https://sftool.gov/greenprocurement/green-products/3/building-finishes/1735/wallboardgypsum-boarddrywall/0?addon=False>.

3.25 PARTITIONS: PERMANENT (OCT 2019)

A. Permanent partitions shall extend from the structural floor slab to the structural ceiling slab. They shall be provided by the Lessor as part of shell rent as necessary to surround the Space, stairs, corridors, elevator shafts, restrooms, all columns, and janitor closets. They shall have a flame spread rating of 25 or less and a smoke development rating of 450 or less (ASTM E-84). Stairs, elevators, and other floor openings shall be enclosed by partitions and shall have the fire resistance required by the applicable building code, fire code and ordinances adopted by the jurisdiction in which the Building is located (such as the International Building Code, etc.) current as of the Lease Award Date.

B. For leases 10,000 RSF or greater where the Government is a sole tenant of the Building, the Lessor is encouraged to use materials for newly installed gypsum board meeting the applicable environmentally preferable criteria that are recommended in the Green Procurement Compilation at [HTTPS://SFTOOL.GOV/GREENPROCUREMENT](https://SFTOOL.GOV/GREENPROCUREMENT) and <https://sftool.gov/greenprocurement/green-products/3/building-finishes/1735/wallboardgypsum-boarddrywall/0?addon=False>.

3.26 INSULATION: THERMAL, ACOUSTIC, AND HVAC (OCT 2019)

A. No insulation installed with this project shall be material manufactured using chlorofluorocarbons (CFCs), nor shall CFCs be used in the installation of the product.

B. All insulation containing fibrous materials exposed to air flow shall be rated for that exposure or shall be encapsulated.

C. Insulating properties for all materials shall meet or exceed applicable industry standards. Polystyrene products shall meet American Society for Testing and Materials (ASTM) C578 91.

D. All insulation shall contain low emitting volatiles and not result in indoor air levels above 0.016 parts per million (ppm) of formaldehyde.

E. The maximum flame spread and smoke developed index for insulation shall meet the requirements of the applicable local codes and ordinances (current as of the Lease Award Date) adopted by the jurisdiction in which the Building is located.

F. For leases 10,000 RSF or greater, all insulation products shall meet applicable, statutory environmentally preferable criteria related to recovered material content as outlined in the Green Procurement Compilation at [HTTPS://SFTOOL.GOV/GREENPROCUREMENT](https://SFTOOL.GOV/GREENPROCUREMENT) and <https://sftool.gov/greenprocurement/green-products/1/construction-materials/22/building-insulation/0>.

3.27 WALL FINISHES – SHELL (SEP 2015)

A. All restrooms within the Building common areas of Government-occupied floors shall have 1) ceramic tile, recycled glass tile, or comparable wainscot from the finished floor to a minimum height of 4'-6" and 2) semigloss paint on remaining wall areas, or other finish approved by the Government.

B. All elevator areas that access the Space and hallways accessing the Space shall be covered with wall coverings not less than 20 ounces per square yard, high performance paint, or an equivalent.

3.28 PAINTING – SHELL (OCT 2019)

A. The Lessor shall bear the expense for all painting associated with the Building shell. These areas shall include all common areas. Exterior perimeter walls and interior core walls within the Space shall be spackled and prime painted. If any Building shell areas are already painted prior to TIs, then the Lessor shall repaint, at the Lessor's expense, as necessary during TIs.

B. The costs for cyclical painting requirements as outlined in Section 6 shall be included in the shell rent.

C. For leases 10,000 RSF or greater, primer shall meet applicable, statutory environmentally preferable criteria related to biobased and recovered material content as outlined in the Green Procurement Compilation at [HTTPS://SFTOOL.GOV/GREENPROCUREMENT](https://SFTOOL.GOV/GREENPROCUREMENT) and <https://sftool.gov/greenprocurement/green-products/3/building-finishes/1338/paint/0?addon=False>.

3.29 FLOORS AND FLOOR LOAD (OCT 2019)

A. All adjoining floor areas shall be of a common level not varying more than 1/4 inch over a 10-foot horizontal run in accordance with the American Concrete Institute standards, non-slip, and acceptable to the LCO.

B. Under-floor surfaces shall be smooth and level. Office areas shall have a minimum live load capacity of 50 pounds per ABOA SF plus 20 pounds per ABOA SF for moveable partitions. Storage areas shall have a minimum live load capacity of 100 pounds per ABOA SF, including moveable partitions. Lessor may be required to provide a report by a registered structural engineer showing the floor load capacity, at the Lessor's expense. Calculations and structural drawings may also be required.

3.30 FLOOR COVERING AND PERIMETERS – SHELL (SEP 2013)

A. Exposed interior floors in primary entrances and lobbies shall be marble, granite, or terrazzo. Exposed interior floors in secondary entrances, elevator lobbies, and primary interior corridors shall be high-grade carpet, marble, granite, or terrazzo. Resilient flooring shall be used in telecommunications rooms. Floor perimeters at partitions shall have wood, rubber, vinyl, marble, or carpet base.

B. Terrazzo, unglazed ceramic tile, recycled glass tile, and/or quarry tile shall be used in all restroom and service areas of Government-occupied floors.

C. Any alternate flooring must be pre-approved by the LCO.

D. The costs for cyclical carpet replacement requirements as outlined in Section 6 shall be included in the shell rent.

3.31 MECHANICAL, ELECTRICAL, PLUMBING: GENERAL (APR 2011)

The Lessor shall provide and operate all Building equipment and systems in accordance with applicable technical publications, manuals, and standard procedures. Mains, lines, and meters for utilities shall be provided by the Lessor. Exposed ducts, piping, and conduits are not permitted in office Space.

3.32 BUILDING SYSTEMS (APR 2011)

Whenever requested, the Lessor shall furnish to GSA as part of shell rent, a report by a registered professional engineer(s) showing that the Building and its systems as designed and constructed will satisfy the requirements of this Lease.

3.33 ELECTRICAL (OCT 2019)

A. The Lessor shall be responsible for meeting the applicable requirements of local codes and ordinances. When codes conflict, the more stringent standard shall apply. Main service facilities shall be enclosed. The enclosure may not be used for storage or other purposes and shall have door(s) fitted with an automatic deadlocking latch bolt with a minimum throw of 1/2 inch. Main distribution for standard office occupancy shall be provided at the Lessor's expense. The electrical distribution panels enclosed in the electrical room shall include: single-phase 120/240 volt or 3-phase 120/208 volt service for leased spaces under 10,000 RSF; 3-phase 120/208 volt service for leased spaces between 10,000 and 25,000 RSF; and 3-phase 277/480 volt and 3-phase 120/208 volt service for leased spaces over 25,000 RSF. In no event shall such power distribution (not including lighting and HVAC) for the Space fall below 4 watts per ABOA SF.

B. Main power distribution switchboards and distribution and lighting panel boards shall be circuit breaker type with copper buses that are properly rated to provide the calculated fault circuits. All power distribution panel boards shall be supplied with separate equipment ground buses. All power distribution equipment shall be required to handle the actual specified and projected loads and 10 percent spare load capacity. Distribution panels are required to accommodate circuit breakers for the actual calculated needs and 10 percent spare circuits that will be equivalent to the majority of other circuit breakers in the panel system. Fuses and circuit breakers shall be plainly marked or labeled to identify circuits or equipment supplied through them.

C. Convenience outlets shall be installed in accordance with NFPA Standard 70, National Electrical Code, or local code, whichever is more stringent. The Lessor shall provide duplex utility outlets in restrooms, corridors, and dispensing areas.

3.34 ~~ADDITIONAL ELECTRICAL CONTROLS (JUN 2012)~~ INTENTIONALLY DELETED

3.35 PLUMBING (JUN 2012)

The Lessor shall include the cost of plumbing in common areas. Hot and cold water risers and domestic waste and vent risers, installed and ready for connections that are required for TIs, shall be included in the shell rent.

3.36 DRINKING FOUNTAINS (OCT 2018)

On each floor of Government-occupied Space, the Lessor shall provide a minimum of two drinking fountains with chilled potable water within 200 feet of travel from any Government-occupied area on the floor. The fountains shall comply with Section F211 of the Architectural Barriers Act Accessibility Standard. Potable is defined as water meeting current EPA primary drinking water standards or more stringent, applicable state or local regulations. The Lessor shall serve as first responder to any occupant complaints about drinking water. The Lessor shall promptly investigate any such complaints and implement the necessary controls to address the complaints and maintain potable water conditions.

3.37 RESTROOMS (OCT 2021)

A. If this Lease is satisfied by new construction or by renovations that include the construction of restrooms, Lessor shall provide water closets, sinks and urinals on each floor that is partially or fully occupied by the government per the schedule below. The schedule is per floor and based on a density of one person for each 135 ABOA SF of office Space, allocated as 50% women and 50% men. If future renovations requiring restroom construction occur during the term of this Lease, the number of fixtures then must meet the schedule as part of the major alterations.

ESTIMATED NUMBER OF EACH GENDER PER FLOOR			(WOMEN'S) WATER CLOSETS	(WOMEN'S) SINKS	(MEN'S) WATER CLOSETS	(MEN'S) URINALS	(MEN'S) SINKS
1	to	8	2	1	1	1	1
9	to	24	3	2	2	1	1
25	to	36	3	2	2	1	2
37	to	56	5	3	3	2	2
57	to	75	6	4	4	2	2
76	to	96	6	5	4	2	3
97	to	119	7	5	5	2	3
120	to	134	9	5	6	3	4
Above 135			3/40	1/24	1/20	1/40	1/30

B. If no new construction of a restroom is occurring, at a minimum, separate restroom facilities for men and women shall be provided with sufficient fixtures (water closets, sinks and urinals), in accordance with local code or ordinances.

C. Each restroom shall have water closets enclosed with modern stall partitions and doors, urinals (in men's room), and hot (set in accordance with applicable building codes) and cold water. Water closets and urinals shall not be visible when the exterior door is open. These facilities shall be located on each floor occupied by the Government in the Building and shall be located so that employees will not be required to travel more than 200 feet on one floor to reach the restrooms.

D. Restrooms must meet ABAAS requirements as stated under this Lease.

E. Each main restroom shall contain the following:

1. A mirror and shelf above the lavatory.
2. A toilet paper dispenser in each water closet stall that will hold the equivalent of at least two standard-sized rolls and allow easy, unrestricted dispensing.
3. A coat hook on the inside face of the door to each water closet stall and on several wall locations by the lavatories.
4. At least one modern paper towel dispenser, soap dispenser, and waste receptacle for every two lavatories.
5. A coin-operated sanitary napkin dispenser in women's restrooms with a waste receptacle in each water closet stall.
6. A disposable toilet seat cover dispenser.
7. A counter area of at least 2 feet, 0 inches in length, exclusive of the lavatories (however, it may be attached to the lavatories) with a mirror above and a ground-fault interrupter-type convenience outlet located adjacent to the counter area. The counter should be installed to minimize pooling or spilling of water at the front edge.
8. A floor drain.
9. Newly installed restroom partitions shall be made from recovered materials as listed in EPA's CPG.

3.38 PLUMBING FIXTURES: WATER CONSERVATION (OCT 2019)

For leases 10,000 RSF or greater, the specifications listed below apply:

1. New installations of plumbing fixtures,
 2. Replacement of existing plumbing fixtures, or
 3. Existing non-conforming fixtures where the Government occupies the full floor.
- A. Water closets must conform to EPA WaterSense or fixtures with equivalent flush volumes must be utilized.
- B. Urinals must conform to EPA WaterSense or fixtures with equivalent flush volumes must be utilized. Waterless urinals are acceptable.
- C. Faucets must conform to EPA WaterSense or fixtures with equivalent flow rates must be utilized.

Information on EPA WaterSense fixtures can be found at [HTTP://WWW.EPA.GOV/WATERSENSE/](http://www.epa.gov/watersense/).

3.39 JANITOR CLOSETS (SEP 2015)

Janitor closets shall meet all local codes and ordinances. When not addressed by local code, Lessor shall provide containment drains plumbed for appropriate disposal of liquid wastes in spaces where water and chemical concentrate mixing occurs for maintenance purposes. Disposal is not permitted in restrooms.

3.40 HEATING, VENTILATION, AND AIR CONDITIONING - SHELL (OCT 2021)

A. Central HVAC systems shall be installed and operational, including, as appropriate, main and branch lines, VAV boxes, dampers, flex ducts, and diffusers, for an open office layout, including all Building common areas. The Lessor shall provide conditioned air through medium pressure duct work at a rate of .75 cubic feet per minute per ABOA SF and systems shall be designed with sufficient systems capacity to meet all requirements in this Lease.

B. Areas having excessive heat gain or heat loss, or affected by solar radiation at different times of the day, shall be independently controlled.

C. Equipment Performance. Temperature control for office Spaces shall be provided by concealed central heating and air conditioning equipment. The equipment shall maintain Space temperature control over a range of internal load fluctuations of plus 0.5 W/SF to minus 1.5 W/SF from initial design requirements of the tenant.

D. Ductwork Re-use and Cleaning. Any ductwork to be reused and/or to remain in place shall be cleaned, tested, and demonstrated to be clean in accordance with the standards set forth by NADCA. The cleaning, testing, and demonstration shall occur immediately prior to Government occupancy to avoid contamination from construction dust and other airborne particulates.

E. During working hours in periods of heating and cooling, ventilation shall be provided in accordance with American National Standards Institute, American Society of Heating, Refrigeration and Air-Conditioning Engineers (ANSI/ASHRAE) Standard 62.1, Ventilation for Acceptable Indoor Air Quality that corresponds with how the HVAC system was designed to perform. At a minimum, Lessor must meet ASHRAE Standard 62.1-2004.

F. For all refrigerant-containing equipment with over 50 pounds of ozone-depleting substances (including chlorofluorocarbons- CFCs or hydrochlorofluorocarbons- HCFCs), the Lessor shall comply with the U.S. Environmental Protection Agency (EPA)'s Significant New Alternative Policy (SNAP) Program for acceptable substitutes and alternatives to ozone-depleting substances when equipment is replaced, comes to its end of useful life, or when newly purchased. Upon request, the Lessor must provide to the Government the type of refrigerant used in chillers and HVAC systems, and the date by which the Lessor plans to replace ozone depleting substances with acceptable refrigerant substitutes in accordance with EPA's SNAP program.

G. Heating and air-conditioning air distribution systems (air handling units, VAV boxes, fan coil units, etc.) for the Space shall be equipped with particulate matter air filters that meet the Minimum Efficiency Reporting Value (MERV) specified in the ANSI/ASHRAE Standard 62.1 version referenced in sub-paragraph E above. Locations that do not meet the EPA National Ambient Air Quality Standards (NAAQS) for particulates (PM 10 or PM 2.5) must be equipped with additional filtration on outdoor air intakes as required in ANSI/ASHRAE Standard 62.1. NAAQS information can be found at [HTTPS://WWW.EPA.GOV/GREEN-BOOK](https://www.epa.gov/green-book).

H. Restrooms shall be properly exhausted, with a minimum of 10 air changes per hour.

I. INTENTIONALLY DELETED

3.41 TELECOMMUNICATIONS: DISTRIBUTION AND EQUIPMENT (SEP 2015)

A. Sufficient space shall be provided on the floor(s) where the Government occupies Space for the purposes of terminating telecommunications service into the Building. The Building's telecommunications closets located on all floors shall be vertically-stacked. Telecommunications switch rooms, wire closets, and related spaces shall be enclosed. The enclosure shall not be used for storage or other purposes and shall have door(s) fitted with an automatic door-closer and deadlocking latch bolt with a minimum throw of 1/2 inch. The telephone closets shall include a telephone backboard.

B. Telecommunications switch rooms, wire closets, and related spaces shall meet applicable Telecommunications Industry Association (TIA) and Electronic Industries Alliance (EIA) standards. These standards include the following:

1. TIA/EIA-568, Commercial Building Telecommunications Cabling Standard,
2. TIA/EIA 569, Commercial Building Standard for Telecommunications Pathways and Spaces,
3. TIA/EIA-570, Residential and Light Commercial Telecommunications Wiring Standard, and
4. TIA/EIA-607, Commercial Building Grounding and Bonding Requirements for Telecommunications Standard.

C. Telecommunications switch rooms, wire closets, and related spaces shall meet applicable NFPA standards. Bonding and grounding shall be in accordance with NFPA Standard 70, National Electrical Code, and other applicable NFPA standards and/or local code requirements.

3.42 TELECOMMUNICATIONS: LOCAL EXCHANGE ACCESS (JUN 2012)

A. The Government may elect to contract its own telecommunications (voice, data, video, Internet or other emerging technologies) service in the Space. The Government may contract with one or more parties to have INS wiring (or other transmission medium) and telecommunications equipment installed.

B. The Lessor shall allow the Government's designated telecommunications providers access to utilize existing Building wiring to connect its services to the Government's Space. If the existing Building wiring is insufficient to handle the transmission requirements of the Government's designated telecommunications providers, the Lessor shall provide access from the point of entry into the Building to the Government's floor Space, subject to any inherent limitations in the pathway involved.

C. The Lessor shall allow the Government's designated telecommunications providers to affix telecommunications antennas (high frequency, mobile, microwave, satellite, or other emerging technologies), subject to weight and wind load conditions, to roof, parapet, or Building envelope as required. Access from the antennas to the Premises shall be provided.

D. The Lessor shall allow the Government's designated telecommunications providers to affix antennas and transmission devices throughout the Space and in appropriate common areas frequented by the Government's employees to allow the use of cellular telephones and communications devices necessary to conduct business.

3.43 LIGHTING: INTERIOR AND PARKING - SHELL (OCT 2020)

NOTE: FOR PRICING ESTIMATING PURPOSES, FIXTURES WILL BE INSTALLED AT THE AVERAGE RATIO OF 1 FIXTURE PER 80 ABOA SF.

A. **INTERIOR FIXTURES:** High efficiency T-8, T-5, or LED light fixtures (and associated ballasts or drivers) shall be installed as either ceiling grid or pendant mounted for an open-office plan. Ceiling grid fixtures shall be either 2' wide by 4' long or 2' wide by 2' long. Lessor shall provide, as part of Shell Rent, a minimum overall lighting fixture efficiency of 85 percent. Lamps shall maintain a uniform color level throughout the lease term.

B. **LIGHTING LEVELS:** Fixtures shall have a minimum of two tubes and shall provide 50 foot-candles at desktop level (30" above finished floor) with a maximum uniformity ratio of 1.5:1. Lessor shall provide, as part of Shell Rent, 10 average foot-candles in all other Building areas within the Premises with a uniformity ratio of 4:1. Emergency egress lighting levels shall be provided in accordance with the local applicable building codes (but not less than 1 foot-candle) by either an onsite emergency generator or fixture mounted battery packs.

C. **POWER DENSITY:**

Existing Buildings: The maximum fixture power density shall not exceed 1.4 watts per ABOA SF.

New Construction: The maximum fixture power density shall not exceed 1.1 watts per ABOA SF.

D. **DAYLIGHTING CONTROLS:** If the Lease is more than 10,000 ABOA SF, the Lessor shall provide daylight dimming controls in atriums or within 15 feet of windows and skylights where daylight can contribute to energy savings. Daylight harvesting sensing and controls shall be either integral to the fixtures or ceiling mounted and shall maintain required lighting levels in work spaces.

E. **OCCUPANCY/VACANCY SENSORS:** The Lessor shall provide ceiling mount occupancy sensors, or vacancy sensors (preferred), or scheduling controls through the building automation system (BAS) throughout the Space in order to reduce the hours that the lights are on when a particular space is unoccupied. No more than 1,000 square feet shall be controlled by any one sensor. Occupancy sensors in enclosed rooms shall continue to operate after the BAS has shut down the building at the end of the workday.

F. **BUILDING PERIMETER:**

1. Exterior parking areas, vehicle driveways, pedestrian walks, and the Building perimeter lighting levels shall be designed per Illuminating Engineering Society (IES) standards. Provide 5 foot-candles for doorway areas, 3 foot-candles for transition areas and at least 1 foot-candle at the surface throughout the parking lot. Parking lot fixtures shall provide a maximum to minimum uniformity ratio of 15:1 and a maximum to average uniformity ratio of 4:1.

2. If the leased space is 100 percent occupied by Government tenants, all exterior parking lot fixtures shall be "Dark Sky" compliant with no property line trespass.

G. **PARKING STRUCTURES:** The minimum illuminance level for parking structures is 5 foot-candles as measured on the floor with a uniformity ratio of 10:1.

H. **PARKING SENSORS:** If the leased space is 100 percent occupied by Government tenants, exterior parking area and parking structure lighting shall be sensor or BAS controlled in order that it may be programmed to produce reduced lighting levels during non-use. This non-use time period will normally be from 11:00 pm to 6:00 am.

I. **EXTERIOR POWER BACKUP:** Exterior egress, walkway, parking lot, and parking structure lighting must have emergency power backup to provide for safe evacuation of the Building.

J. **VIDEO SURVEILLANCE SYSTEM (VSS):** Lighting shall be provided in such a manner to adequately support VSS operations, and not limit or preclude adequate fields of view.

3.44 ACOUSTICAL REQUIREMENTS (JUN 2012)

A. **Reverberation Control.** Private office and conference rooms using suspended acoustical ceilings shall have a noise reduction coefficient (NRC) of not less than 0.65 in accordance with ASTM C-423. Open office using suspended acoustical ceilings shall have an NRC of not less than 0.75. Private offices, conference rooms, and open offices using acoustical cloud or acoustical wall panels with a minimum of 70% coverage shall have an NRC of not less than 0.85.

B. **Ambient Noise Control.** Ambient noise from mechanical equipment shall not exceed noise criteria curve (NC) 35 in accordance with the ASHRAE Handbook of Fundamentals in offices and conference rooms; NC 40 in corridors, cafeterias, lobbies, and restrooms; NC 50 in other spaces.

C. **Noise Isolation.** Rooms separated from adjacent spaces by ceiling high partitions (not including doors) shall not be less than the following noise isolation class (NIC) standards when tested in accordance with ASTM E-336:

Conference rooms: NIC 40

Offices: NIC 35

D. **Testing.** The LCO may require, at Lessor's expense, test reports by a qualified acoustical consultant showing that acoustical requirements have been met.

3.45 ~~SECURITY FOR NEW CONSTRUCTION (OCT 2024)~~ INTENTIONALLY DELETED

3.46 ~~SEISMIC SAFETY FOR NEW CONSTRUCTION (OCT 2020)~~ INTENTIONALLY DELETED**3.47 ~~FIRE PROTECTION FOR NEW CONSTRUCTION (APR 2015)~~ INTENTIONALLY DELETED****3.48 ~~GREEN BUILDING RATING CERTIFICATION FOR NEW CONSTRUCTION (OCT 2016)~~ INTENTIONALLY DELETED****3.49 ~~GREEN BUILDING RATING CERTIFICATION FOR TENANT INTERIORS (OCT 2016)~~ INTENTIONALLY DELETED****3.50 INDOOR AIR QUALITY DURING CONSTRUCTION (OCT 2021)**

A. The Lessor shall provide to the Government safety data sheets (SDS) or other appropriate documents upon request, but prior to installation or use for the following products, including but not limited to, adhesives, caulking, sealants, insulating materials, fireproofing or fire stopping materials, paints, carpets, floor and wall patching or leveling materials, lubricants, clear finishes for wood surfaces, janitorial cleaning products, and pest control products.

B. The LCO may eliminate from consideration products with significant quantities of toxic, flammable, corrosive, or carcinogenic material and products with potential for harmful chemical emissions. Materials used often or in large quantities will receive the greatest amount of review.

C. Where demolition or construction work occurs adjacent to occupied Space, the Lessor shall erect appropriate barriers (noise, dust, odor, etc.) and take necessary steps to minimize interference with the occupants. This includes maintaining acceptable temperature, humidity, and ventilation in the occupied areas during window removal, window replacement, or similar types of work.

D. HVAC during Construction: If air handlers are used during construction, the Lessor shall provide filtration media with a MERV of 8 at each return air grill, as determined by ANSI/ASHRAE Standard 52.2, Method of Testing General Ventilation Air Cleaning Devices for Removal Efficiency by Particle Size.

E. Flush-Out Procedure:

1. For leases 10,000 RSF or greater:

i. HVAC flush-out shall commence after construction ends and the Building has been completely cleaned. All interior finishes, such as millwork, doors, paint, carpet, acoustic tiles, and movable furnishings (e.g., workstations, partitions), must be installed, and major VOC punch list items must be finished.

ii. Prior to occupancy, Lessor shall install new filtration media and perform a building flush-out by supplying a total air volume of 14,000 cubic feet of outdoor air per square foot of gross floor area while maintaining an internal temperature of at least 60°F (15°C) and no higher than 80°F (27°C) and relative humidity no higher than 60%.

iii. If the LCO determines that occupancy is required before flush-out can be completed, the Space may be occupied only after delivery of a minimum of 3,500 cubic feet of outdoor air per square foot of gross floor area while maintaining an internal temperature of at least 60°F (15°C) and no higher than 80°F (27°C) and relative humidity no higher than 60%. Once the Space is occupied, it must be ventilated at a minimum rate of 0.30 cubic foot per minute (cfm) per square foot of outdoor air or greater. During each day of the flush-out period, ventilation must begin at least three hours before occupancy and continue during occupancy. These conditions must be maintained until a total of 14,000 cubic feet per square foot of outdoor air (4 270 liters of outdoor air per square meter) has been delivered to the space.

iv. The Lessor shall provide a signed statement explaining how all HVAC systems serving the leased Space will achieve the desired ventilation of the Space during the flush-out period.

2. For leases less than 10,000 RSF, the Lessor shall sufficiently flush-out or ventilate the area(s) following construction and prior to occupancy in order to remove any detectable odors or visible dust related to the work.

3.51 SYSTEMS COMMISSIONING (APR 2011)

The Lessor shall incorporate commissioning requirements to verify that the installation and performance of energy consuming systems meet the Government's project requirements. The commissioning shall cover only work associated with TIs or alterations or at a minimum: heating, ventilating, air conditioning and refrigeration (HVAC&R) systems and associated controls, lighting controls, and domestic hot water systems.

3.52 ~~DUE DILIGENCE AND NATIONAL ENVIRONMENTAL POLICY ACT REQUIREMENTS – LEASE (SEP 2014)~~ INTENTIONALLY DELETED**3.53 ~~NATIONAL HISTORIC PRESERVATION ACT REQUIREMENTS – LEASE (SEP 2014)~~ INTENTIONALLY DELETED****3.54 ~~DESIGN EXCELLENCE – LEASE (OCT 2016)~~ INTENTIONALLY DELETED**

SECTION 4 DESIGN, CONSTRUCTION, AND POST AWARD ACTIVITIES

4.01 SCHEDULE FOR COMPLETION OF SPACE (OCT 2020)

Design and construction activities for the Space shall commence upon Lease award.

Construction of TIs and completion of other required construction work: The Lessor shall complete all work as required in this Lease not later than **120** Working Days following the Government's issuance of a NTP; in the event of unforeseen labor and supply chain delays that schedule will be adjusted accordingly. Any schedule revisions shall be agreed to in writing by the Lessor and the Government.

4.02 CONSTRUCTION DOCUMENTS (SEP 2012)

The Lessor's CDs shall include all mechanical, electrical, plumbing, fire protection, life safety, lighting, structural, security, and architectural improvements scheduled for inclusion into the Space. CDs shall be annotated with all applicable specifications. CDs shall also clearly identify TIs already in place and the work to be done by the Lessor or others. Notwithstanding the Government's review of the CDs, the Lessor is solely responsible and liable for their technical accuracy and compliance with all applicable Lease requirements.

4.03 TENANT IMPROVEMENTS PRICE PROPOSAL (OCT 2020)

A. The Lessor's TI price proposal shall be supported by sufficient cost or pricing data to enable the Government to evaluate the reasonableness of the proposal, or documentation that the Proposal is based upon competitive proposals (as described below) obtained from entities not affiliated with the Lessor. Any work shown on the CDs that is required to be included in the Building shell rent or already priced as BSAC shall be clearly identified and excluded from the TI price proposal. After negotiation and acceptance of the TI price, GSA shall issue a NTP to the Lessor.

B. Under the provisions of FAR Subpart 15.4, the Lessor shall submit a TI price proposal with information that is adequate for the Government to evaluate the reasonableness of the price or determining cost realism for the TIs within the time frame specified in this section. The TI price proposal shall use the fee rates specified in the "Tenant Improvement Fee Schedule" paragraph of this Lease. The Lessor shall exclude from the TI price proposal all costs for fixtures and/or other TIs already in place, provided the Government has accepted same. However, the Lessor will be reimbursed for costs to repair or improve the fixture(s) and/or any other improvements already in place. The Lessor must provide certified cost or pricing data for TI proposals exceeding the threshold in FAR 15.403-4, to establish a fair and reasonable price. For TI proposals that do not exceed the threshold in FAR 15-403-4, the Lessor shall submit adequate documentation to support the reasonableness of the price proposal as determined by the LCO.

C. The TIs scope of work includes the Lease, the DIDs, the CDs, and written specifications. In cases of discrepancies, the Lessor shall immediately notify the LCO for resolution. All differences will be resolved by the LCO in accordance with the terms and conditions of the Lease.

D. In lieu of requiring the submission of detailed cost or pricing data as described above, the Government (in accordance with FAR 15.403) is willing to negotiate a price based upon the results of a competitive proposal process. A minimum of two qualified General Contractors (GCs) shall be invited by the Lessor to participate in the competitive proposal process. Each participant shall compete independently in the process. In the absence of sufficient competition from the GCs, a minimum of two qualified subcontractors from each trade of the Tenant Improvement Cost Summary (TICS) Table (described below) shall be invited to participate in the competitive proposal process.

E. Each TI proposal shall be (1) submitted by the proposed General Contractors (or subcontractors) using the TICS Table in CSI Masterformat (filling out all sheets, including each division tab, as necessary); (2) reviewed by the Lessor prior to submission to the Government to ensure compliance with the scope of work (specified above) and the proper allocation of shell and TI costs; and (3) reviewed by the Government. General Contractors shall submit the supporting bids from the major subcontractors along with additional backup to the TICS Table in a format acceptable to the Government.

F. Unless specifically designated in this Lease as a TI or BSAC cost, all construction costs shall be deemed to be included in the Shell Rent. Any costs in the GC's proposal for Building shell items shall be clearly identified on the TICS Table separately from the TI costs.

G. The Government reserves the right to determine if bids meet the scope of work, that the price is reasonable, and that the Lessor's proposed contractors are qualified to perform the work. The Government reserves the right to reject all bids at its sole discretion. The Government reserves the right to attend or be represented at all negotiation sessions between the Lessor and potential contractors.

H. The Lessor shall demonstrate to the Government that best efforts have been made to obtain the most competitive prices possible, and the Lessor shall accept responsibility for all prices through direct contracts with all contractors. The LCO shall issue to the Lessor a NTP with the TIs upon the Government's sole determination that the Lessor's proposal is acceptable. The Lessor shall complete the work within the time frame specified in this section of the Lease.

4.04 BUILDING SPECIFIC AMORTIZED CAPITAL (BSAC) PRICE PROPOSAL (SEP 2015)

The Lessor's BSAC price proposal shall be supported by sufficient cost or pricing data to enable the Government to evaluate the reasonableness of the proposal, or documentation that the Proposal is based upon competitive proposals. The pricing shall be submitted using the Security Unit Price List (SecUP).

4.05 GREEN LEASE SUBMITTALS (OCT 2024) INTENTIONALLY DELETED

4.06 CONSTRUCTION SCHEDULE AND INITIAL CONSTRUCTION MEETING (OCT 2020)

The Lessor shall furnish a detailed construction schedule (such as Critical Path Method) to the Government within **5** Working Days of issuance of the NTP. Such schedule shall also indicate the dates available for Government contractors to install telephone/data lines or equipment, if needed. Within **10** Working Days of NTP, the Lessor shall initiate a construction meeting. This meeting may be held in person or virtually, at the discretion of the Government. The Lessor will have contractor representatives including its architects, engineers, general contractor and sub-contractor representatives in attendance. The Lessor shall keep meeting minutes of discussion topics and attendance.

4.07 PROGRESS REPORTS (OCT 2020)

After start of construction, the Lessor shall submit to the LCO written progress reports at intervals of **10** Working Days. Each report shall include information as to the percentage of the work completed by phase and trade; a statement as to expected completion and occupancy dates; changes introduced into the work; and general remarks on such items as material shortages, strikes, weather, etc, that may affect timely completion. In addition, at the Government's discretion, the Lessor shall conduct meetings every two weeks to brief Government personnel and/or contractors regarding the progress of design and construction of the Space. These meetings may be held in person or virtually, at the discretion of the Government. The Lessor shall be responsible for taking and distributing minutes of these meetings.

4.08 CONSTRUCTION INSPECTIONS (SEP 2015)

A. The LCO or the LCO's designated technical representative may periodically inspect construction work to review compliance with Lease requirements and approved DIDs, if applicable.

B. Periodic reviews, witnessing of tests, and inspections by the Government shall not constitute approval of the Lessor's apparent progress toward meeting the Government's objectives but are intended to discover any information which the LCO may be able to call to the Lessor's attention to prevent costly misdirection of effort. The Lessor shall remain responsible for designing, constructing, operating, and maintaining the Building in full accordance with the requirements of the Lease.

4.09 ~~ACCESS BY THE GOVERNMENT PRIOR TO ACCEPTANCE (SEP 2013)~~ INTENTIONALLY DELETED**4.10 ~~ACCEPTANCE OF SPACE AND CERTIFICATE OF OCCUPANCY (SEP 2024)~~ INTENTIONALLY DELETED****4.11 ~~LEASE TERM COMMENCEMENT DATE AND RENT RECONCILIATION (JUN 2024)~~ INTENTIONALLY DELETED****4.12 AS-BUILT DRAWINGS (OCT 2019)**

Not later than **90** days after the acceptance of the Space, the Lessor, at Lessor's expense, shall furnish to the Government a complete set of Computer Aided Design (CAD) files of as-built floor plans showing the Space under Lease, as well as corridors, stairways, and core areas. As-built drawings shall include those for Civil, Architectural, Mechanical, Electrical, and Plumbing features, including, but not limited to, those for IT, Communications, Security, and Fire Protection. The plans shall have been generated by a CAD program which is compatible with the latest release of AutoCAD. The required file extension is ".DWG." Clean and purged files shall be submitted in a digital format. They shall be labeled with Building name, address, list of drawing(s), date of the drawing(s), and Lessor's architect and architect's phone number.

4.13 ~~LIQUIDATED DAMAGES (JUN 2012)~~ INTENTIONALLY DELETED**4.14 ~~SEISMIC RETROFIT (SEP 2013)~~ INTENTIONALLY DELETED****4.15 LESSOR'S PROJECT MANAGEMENT RESPONSIBILITIES (OCT 2020)**

A. The Lessor's project management fee shall cover all of the Lessor's project management costs associated with the delivery of Tenant Improvements, including, but not limited to:

1. Legal fees
2. Travel costs
3. Insurance
4. Home office overhead and other indirect costs
5. Carrying costs, exclusive of the TI amortization rate. Carrying costs are those costs of capital incurred for the delivery of TI, for the period starting from Lessor's outlay of funds, until the Lease Term Commencement Date.
6. Municipal, county, or state fees (not related to sales tax or construction permits associated with TI buildout)
7. TI proposal preparation costs
8. Lessor's labor costs related to the management of the TI build-out.

B. At a minimum, the Lessor shall be responsible for performing the following services:

1. Provide assistance and expertise to the Government project team in the form of coordination, management, and administration of the design and construction process;
2. Monitor performance of the general contractor and other contractors, control schedules, and oversee financial accounts;
3. Conduct and document design and construction project meetings;
4. Perform administrative tasks, including documentation, record keeping (issuing meeting minutes), and payment validation in addition to submittal and change order processing;
5. Maintain Request for Information (RFI), submittal, and change order logs; and

6. Provide technical expertise (e.g. testing, estimating, resolving claims, or responding to inquiries).

4.16 GOVERNMENT PROJECT MANAGEMENT SYSTEM (OCT 2021)

The Government may direct the Lessor to use the Government's designated project management system for post-award and post-occupancy activities. This includes, but is not limited to, design submittals (DIDs, CD, as-builts), schedule submissions, pricing proposals, reuse plans, commissioning plans, and product data sheets.

SECTION 5 TENANT IMPROVEMENT COMPONENTS

5.01 TENANT IMPROVEMENT REQUIREMENTS (OCT 2016)

The TIs shall be designed, constructed, and maintained in accordance with the standards set forth in this Lease. For pricing, only those requirements designated within this Section 5, or designated as TIs within the attached agency requirements and Security Requirements, shall be deemed to be TI costs.

5.02 ~~TENANT IMPROVEMENT SPECIFICATIONS (SEP 2015)~~ INTENTIONALLY DELETED

5.03 FINISH SELECTIONS (SEP 2015)

The Lessor must consult with the Government prior to developing a minimum of three (3) finish options to include coordinated samples of finishes for all interior elements such as paint, wall coverings, base coving, carpet, window treatments, laminates, and flooring. All samples provided must comply with specifications set forth elsewhere in this Lease. All required finish option samples must be provided at no additional cost to the Government within 10 Working Days after initial submission of DIDs, if applicable. GSA must deliver necessary finish selections to the Lessor within 10 Working Days after receipt of samples. The finish options must be approved by GSA prior to installation. The Lessor may not make any substitutions after the finish option is selected.

5.04 WINDOW COVERINGS (JUN 2012)

A. Window Blinds. All exterior windows shall be equipped with window blinds in new or like new condition, which shall be provided as part of the TIs. The blinds may be aluminum or plastic vertical blinds, horizontal blinds with aluminum slats of one-inch width or less, solar fabric roller shades, or an equivalent product pre-approved by the Government. The window blinds shall have non-corroding mechanisms and synthetic tapes. Color selection will be made by the Government.

B. Draperies:

1. If draperies are required, they shall be part of the TIs and the following minimum specifications shall apply:

a. Fabrics shall be lined with either white or off-white plain lining fabric suited to the drapery fabric weight. Draperies shall be floor, apron, or sill length, as specified by the Government, and shall be wide enough to cover window and trim. Draperies shall be hung with drapery hooks on well-anchored heavy duty traverse rods. Traverse rods shall draw from the center, right, or left side.

b. Construction. Any draperies to be newly installed shall be made as follows:

- i. Fullness of 100 percent, including overlap, side hems, and necessary returns;
- ii. Double headings of 4 inches turned over a 4-inch permanently finished stiffener;
- iii. Doubled side hems of 1-1/2 inches; 4-inch doubled and blind stitched bottom hems;
- iv. Three-fold pinch pleats;
- v. Safety stitched intermediate seams;
- vi. Matched patterns;
- vii. Tacked corners; and,
- viii. No raw edges or exposed seams.

c. Use of existing draperies must be approved by the Government.

5.05 DOORS: SUITE ENTRY (OCT 2019)

A. Suite entry doors shall be provided as part of the TIs and shall have a minimum clear opening of 32" wide x 84" high (per leaf). Doors shall meet the requirements of being a flush, solid core, 1-3/4-inch thick, wood door with a natural wood veneer face or an equivalent pre-approved by the Government. Hollow core wood doors are not acceptable. They shall be operable by a single effort; and shall meet the requirement of NFPA 101, Life Safety Code or the International Building Code (current as of the Lease Award Date). Doors shall be installed in a metal frame assembly which is primed and finished with a low VOC semi gloss oil-based paint finish that does not result in indoor air quality levels above 0.016 parts per million (ppm) of formaldehyde.

B. For leases 10,000 RSF or greater, the paint finish must meet applicable, statutory environmentally preferable criteria related to biobased and recovered material content as outlined in the Green Procurement Compilation at [HTTPS://SFTOOL.GOV/GREENPROCUREMENT](https://SFTOOL.GOV/GREENPROCUREMENT).and <https://sftool.gov/greenprocurement/green-products/3/building-finishes/1338/paint/0?addon=False>.

5.06 DOORS: INTERIOR (OCT 2019)

A. Doors within the Space shall be provided as part of the TIs and shall have a minimum clear opening of 32" wide x 80" high. Doors shall be flush, solid core, wood with a natural wood veneer face or an equivalent door pre-approved by the LCO. Hollow core wood doors are not acceptable. They shall be operable with a single effort, and shall meet the requirements of NFPA 101, Life Safety Code or the International Building Code (current as of the Lease Award Date). Doors shall be installed in a metal frame assembly which is primed and finished with a low VOC semi-gloss oil-based paint and which does not result in indoor air quality levels above 0.016 parts per million (ppm) of formaldehyde.

B. For leases 10,000 RSF or greater, the paint finish must meet applicable, statutory environmentally preferable criteria related to biobased and recovered material content as outlined in the Green Procurement Compilation at [HTTPS://SFTOOL.GOV/GREENPROCUREMENT](https://SFTOOL.GOV/GREENPROCUREMENT).and [HTTPS://SFTOOL.GOV/GREENPROCUREMENT/GREEN-PRODUCTS/3/BUILDING-FINISHES/1338/PAINT/0?ADDON=FALSE](https://SFTOOL.GOV/GREENPROCUREMENT/GREEN-PRODUCTS/3/BUILDING-FINISHES/1338/PAINT/0?ADDON=FALSE).

5.07 DOORS: HARDWARE (SEP 2013)

Doors shall have door handles or door pulls with heavyweight hinges. The Lessor is encouraged to avoid the use of chrome-plated hardware. All doors shall have corresponding doorstops (wall- or floor-mounted) and silencers. All door entrances leading into the Space from public corridors and exterior doors shall have automatic door closers. Doors designated by the Government shall be equipped with 5-pin, tumbler cylinder locks and strike plates. All locks shall be master keyed. Furnish at least two master keys for each lock to the Government. Any exterior entrance shall have a high security lock, with appropriate key control procedures, as determined by Government specifications. Hinge pins and hasps shall be secured against unauthorized removal by using spot welds or pinned mounting bolts. The exterior side of the door shall have a lock guard or astragal to prevent tampering of the latch hardware. Doors used for egress only shall not have any operable exterior hardware. All security-locking arrangements on doors used for egress shall comply with requirements of NFPA 101 or the International Building Code current as of the Lease Award Date.

5.08 DOORS: IDENTIFICATION (JUN 2012)

Door identification shall be installed in approved locations adjacent to office entrances as part of the TIs. The form of door identification shall be approved by the Government.

5.09 PARTITIONS: SUBDIVIDING (OCT 2020)

A. Office subdividing partitions shall comply with applicable building codes and local requirements and ordinances and shall be provided as part of the TIs. Partitioning shall extend from the finished floor to the finished ceiling and shall be designed to provide a minimum sound transmission class (STC) of 37. Partitioning shall be installed by the Lessor at locations to be determined by the Government as identified in the DIDs, if applicable. They shall have a flame spread rating of 25 or less and a smoke development rating of 450 or less (ASTM E-84).

B. HVAC shall be rebalanced and lighting repositioned, as appropriate, after installation of partitions.

C. If installed in accordance with the "Automatic Fire Sprinkler System" and "Fire Alarm System" paragraphs, sprinklers and fire alarm notification appliances shall be repositioned as appropriate after installation of partitions to maintain the level of fire protection and life safety.

D. Partitioning requirements may be satisfied with existing partitions if they meet the Government's standards and layout requirements.

E. For leases 10,000 RSF or greater where the Government is a sole tenant of the Building, the Lessor is encouraged to use materials for newly installed gypsum board meeting applicable environmentally preferable criteria that are recommended in the Green Procurement Compilation at [HTTPS://SFTOOL.GOV/GREENPROCUREMENT](https://SFTOOL.GOV/GREENPROCUREMENT) and <https://sftool.gov/greenprocurement/green-products/3/building-finishes/1735/wallboardgypsum-boarddrywall/0?addon=False>.

5.10 WALL FINISHES (OCT 2019)

If the Government chooses to install a wall covering, the following specifications shall apply:

A. Commercial grade, weighing not less than 13 ounces per square yard.

B. For leases 10,000 RSF or greater, wall covering shall be vinyl-free, chlorine-free, plasticizer-free, with recycled or bio-based content. If the Government chooses to install a high-performance paint coating, it shall comply with the VOC limits of the Green Seal Standard GS-11.

5.11 PAINTING – TI (OCT 2019)

A. Prior to acceptance, all surfaces within the Space which are designated by GSA for painting shall be newly finished in colors and type of paint acceptable to the Government.

B. For leases 10,000 RSF or greater, the Lessor shall provide interior paints, primers, coatings, stains, and sealers that meet applicable, statutory, environmentally preferable criteria for biobased and recovered material content as outlined under the Green Procurement Compilation at [HTTPS://SFTOOL.GOV/GREENPROCUREMENT](https://SFTOOL.GOV/GREENPROCUREMENT) and <https://sftool.gov/greenprocurement/green-products/3/building-finishes/1338/paint/0?addon=False>. The Lessor shall use reprocessed latex paint in accordance with EPA's CPG (Comprehensive Procurement Guidelines) on all painted surfaces where feasible.

5.12 FLOOR COVERINGS AND PERIMETERS (OCT 2019)

A. Broadloom carpet or carpet tiles shall meet the requirements set forth in the specifications below. Floor perimeters at partitions shall have wood, rubber, vinyl, or carpet base. Floor covering shall be installed in accordance with manufacturing instructions to lay smoothly and evenly.

B. The use of existing carpet may be approved by the Government; however, existing carpet shall be repaired, stretched, and cleaned before occupancy and shall meet the static buildup requirement as stated in the specifications below.

C. Any alternate flooring shall be pre-approved by the Government.

D. SPECIFICATIONS FOR CARPET TO BE NEWLY INSTALLED OR REPLACED

1. Product sustainability and environmental requirements. For leases 10,000 RSF or greater, floor covering and perimeter products must meet applicable, statutory, environmentally preferable criteria related to biobased and recovered material content as outlined under the Green Procurement Compilation at WWW.SFTOOL.GOV/GREENPROCUREMENT and [HTTPS://SFTOOL.GOV/GREENPROCUREMENT/GREEN-PRODUCTS/3/BUILDING-FINISHES/23/CARPET/0?ADDON=FALSE](https://SFTOOL.GOV/GREENPROCUREMENT/GREEN-PRODUCTS/3/BUILDING-FINISHES/23/CARPET/0?ADDON=FALSE), and [HTTPS://SFTOOL.GOV/GREENPROCUREMENT/GREEN-PRODUCTS/3/BUILDING-FINISHES/1307/FLOOR-COVERINGS-NON-CARPET/0?ADDON=FALSE](https://SFTOOL.GOV/GREENPROCUREMENT/GREEN-PRODUCTS/3/BUILDING-FINISHES/1307/FLOOR-COVERINGS-NON-CARPET/0?ADDON=FALSE), and <https://sftool.gov/greenprocurement/green-products/3/building-finishes/97/floor-tiles-heavy-dutycommercial/0?addon=False>.

2. Face fiber content. Face yarn must be 100 percent nylon fiber. Loop Pile shall be 100 percent Bulk Continuous Filament (BCF); cut and loop shall be 100 percent BCF for the loop portion and may be BCF or staple for the cut portion; cut pile carpet shall be staple or BCF.

3. Performance requirements for broadloom and modular tile:

- a. Static: Less than or equal to 3.5 kV when tested by AATCC Test Method 134 (Step Test Option).
- b. Flammability: Meets CPSC-FF-1-70, DOC-FF-1-70 Methenamine Tablet Test criteria.
- c. Flooring Radiant Panel Test: Meets NFPA 253 Class I or II depending upon occupancy and fire code when tested under ASTM E-648 for glue down installation.
- d. Smoke Density: NBS Smoke Chamber - Less than 450 Flaming Mode when tested under ASTM E-662.

NOTE: Testing must be performed in a NVLAP accredited laboratory.

4. Texture Appearance Retention Rating (TARR). Carpet must meet TARR rating of at least 3.0 TARR for moderate traffic areas such as private offices, and heavy traffic areas such as training space, conference rooms, courtrooms, etc., and at least 3.5 TARR for severe traffic areas, including open office space, cafeteria, corridors and lobbies. The carpet must be evaluated using ASTM D-5252 Hexapod Drum Test as per the commercial carpet test procedure and the TARR classification determined using ASTM D-7330.

5. Carpet reclamation. Reclamation of existing carpet to be determined with potential vendor. When carpet is replaced, submit certification documentation from the reclamation facility to the LCO.

6. Warranty. Submit a copy of the manufacturer's standard warranty to the LCO within the first 60 days of Government occupancy. The Government is to be a beneficiary of the terms of this warranty.

5.13 HEATING AND AIR CONDITIONING (JUN 2012)

Zone Control. Provide individual thermostat control for office Space with control areas not to exceed 1,500 ABOA SF. Interior spaces must be separately zoned. Specialty occupancies (conference rooms, kitchens, etc.) must have active controls capable of sensing Space use and modulating HVAC system in response to Space demand. Areas that routinely have extended hours of operation shall be environmentally controlled through dedicated heating and air conditioning equipment. Special purpose areas (such as photocopy centers, large conference rooms, computer rooms, etc.) with an internal cooling load in excess of 5 tons shall be independently controlled. Provide concealed package air conditioning equipment to meet localized spot cooling of tenant special equipment. Portable space heaters are prohibited.

5.14 ELECTRICAL: DISTRIBUTION (SEP 2015)

- A. All electrical, telephone, and data outlets within the Space shall be installed by the Lessor in accordance with the DIDs, if applicable. All electrical outlets shall be installed in accordance with NFPA Standard 70.
- B. All outlets within the Space shall be marked and coded for ease of wire tracing; outlets shall be circuited separately from lighting. All floor outlets shall be flush with the plane of the finished floor. Outlet cover colors shall be coordinated with partition finish selections.
- C. The Lessor shall in all cases safely conceal outlets and associated wiring (for electricity, voice, and data) to the workstation(s) in partitions, ceiling plenums, in recessed floor ducts, under raised flooring, or by use of a method acceptable to the Government.

5.15 TELECOMMUNICATIONS: DISTRIBUTION AND EQUIPMENT (JUN 2012)

Telecommunications floor or wall outlets shall be provided as part of the TIs. At a minimum, each outlet shall house one 4-pair wire jack for voice and one 4-pair wire jack for data. The Lessor shall ensure that all outlets and associated wiring, copper, coaxial cable, optical fiber, or other transmission medium used to transmit telecommunications (voice, data, video, Internet, or other emerging technologies) service to the workstation shall be safely concealed under raised floors, in floor ducts, walls, columns, or molding. All outlets/junction boxes shall be provided with rings and pull strings to facilitate the installation of cable. Some transmission medium may require special conduit, inner duct, or shielding as specified by the Government.

5.16 TELECOMMUNICATIONS: LOCAL EXCHANGE ACCESS (AUG 2008)

Provide sealed conduit to house the agency telecommunications system when required.

5.17 DATA DISTRIBUTION (OCT 2020)

The Lessor shall purchase and install data cable as part of the tenant improvements. The Lessor shall safely conceal data outlets and the associated wiring used to transmit data to workstations in floor ducts, walls, columns, or below access flooring. When cable consists of multiple runs, the Lessor shall provide ladder type or other acceptable cable trays to prevent cable coming into contact with suspended ceilings or sprinkler piping. Cable trays shall form a loop around the perimeter of the Space such that they are within a 30-foot horizontal distance of any single drop. If the Government chooses to purchase and install data cabling, then the Lessor shall provide, as part of the tenant improvements, outlets with rings and pull strings to facilitate the installation of the data cable.

5.18 ELECTRICAL, TELEPHONE, DATA FOR SYSTEMS FURNITURE (OCT 2020)

A. The Lessor shall provide as part of the TIs separate data, telephone, and electric junction boxes for the base feed connections to Government provided modular or systems furniture, when such feeds are supplied via wall outlets or floor penetrations. When overhead feeds are used, junction boxes shall be installed for electrical connections. Raceways shall be provided throughout the furniture panels to distribute the electrical, telephone, and data cable. The Lessor shall provide all electrical service wiring and connections to the furniture at designated junction points. Each electrical junction shall contain an 8-wire feed consisting of 3 general purpose 120-V circuits with 1 neutral and 1 ground wire, and a 120-V isolated ground circuit with 1 neutral and 1 isolated ground wire. A 20-ampere circuit shall have no more than 8 general purpose receptacles or 4 isolated ground "computer" receptacles.

B. The Lessor shall purchase and install data and telecommunications cable. Said cable shall be installed and connected to systems furniture by the Lessor/contractor with the assistance and/or advice of the Government or computer vendor. The Lessor shall provide wall mounted data and telephone junction boxes. When cable consists of multiple runs, the Lessor shall provide ladder-type or other acceptable cable trays to prevent Government provided cable coming into contact with suspended ceilings or sprinkler piping. Cable trays shall form a loop around the perimeter of the Space such that they are within a 30-foot horizontal distance of any single drop. Said cable trays shall provide access to both telecommunications data closets and telephone closets. If the Government chooses to purchase and install data and telecommunications cabling, then the Lessor shall provide, as part of the TIs, outlets with rings and pull strings to facilitate the installation of the data cable.

C. The Lessor shall furnish and install suitably sized junction boxes near the "feeding points" of the furniture panels. All "feeding points" shall be shown on Government approved design intent drawings. The Lessor shall temporarily cap off the wiring in the junction boxes until the furniture is installed. The Lessor shall make all connections in the power panel and shall keep the circuit breakers off. The Lessor shall identify each circuit with the breaker number and shall identify the computer hardware to be connected to it. The Lessor shall identify each breaker at the panel and identify the devices that it serves.

D. The Lessor's electrical contractor must connect power poles or base feeds in the junction boxes to the furniture electrical system and test all pre-wired receptacles in the systems furniture. Other Government contractors will be installing the data cable in the furniture panels for the terminal and printer locations, installing the connectors on the terminal/printer ends of the cable, and continuity testing each cable. Work shall be coordinated and performed in conjunction with the furniture, telephone, and data cable installers. Much of this work may occur over a weekend on a schedule that requires flexibility and on-call visits. The Lessor must coordinate the application of Certification of Occupancy with furniture installation.

5.19 LIGHTING: INTERIOR AND PARKING – TI (SEP 2015)

A. **FIXTURES:** Once the design intent drawings are approved, the Lessor shall design and provide interior lighting to comply with requirements under the paragraph, "Lighting: Interior and Parking – Shell." Any additional lighting fixtures and/or components required beyond what would have been provided for an open office plan (shell) are part of the TIs.

B. **PENDANT STYLE FIXTURES:** If pendant style lighting fixtures are used, the increase between the number of fixtures required in the Building shell and the Space layout is part of the TIs.

C. **MIXED FIXTURES:** DIDs, if applicable, may require a mixed use of recessed or pendant style fixtures in the Space.

D. **BUILDING PERIMETER:** There may be additional requirements for lighting in exterior parking areas, vehicle driveways, pedestrian walkways, and Building perimeter in the Security Requirements attached to this Lease.

5.20 AUTOMATIC FIRE SPRINKLER SYSTEM - TI (OCT 2016)

Where sprinklers are required in the Space, sprinkler mains and distribution piping in a "protection" layout (open plan) with heads turned down with an escutcheon or trim plate shall be provided as part of Shell rent. Any additional sprinkler fixtures and/or components required in the Space beyond what would have been provided for an open office plan (shell) are part of the TIs.

SECTION 6 UTILITIES, SERVICES, AND OBLIGATIONS DURING THE LEASE TERM

6.01 PROVISION OF SERVICES, ACCESS, AND NORMAL HOURS (JUN 2012)

A. The Government's normal hours of operations are established as **7:00** AM to **6:00** PM, Monday through Friday, with the exception of Federal holidays. Services, maintenance, and utilities shall be provided during these hours. The Government shall have access to the Premises and its Appurtenant Areas at all times without additional payment, including the use, during other than normal hours, of necessary services and utilities such as elevators, restrooms, lights, and electric power. Cleaning shall be performed during normal hours.

B. The Lessor and the Lessor's representatives, employees and contractors shall demonstrate a cooperative, positive, welcoming, respectful, professional and business-like demeanor and shall present a neat, clean, job-appropriate (professional) appearance.

6.02 UTILITIES (APR 2011)

The Lessor is responsible for providing all utilities necessary for base Building and tenant operations as part of the rental consideration.

6.03 ~~UTILITIES SEPARATE FROM RENTAL/BUILDING OPERATING PLAN (OCT 2020)~~ INTENTIONALLY DELETED

6.04 UTILITY CONSUMPTION REPORTING (OCT 2016)

Upon the effective date of the Lease, only for leases over 10,000 RSF, the Lessor shall provide regular quarterly reports for the amount of utilities (including water) consumed at the Building broken down by utility type per month for the duration of the Lease. Lessors shall report this utility consumption data within 45 calendar days of the end of each calendar quarter in the Environmental Protection Agency (EPA) Portfolio Manager online tool [HTTPS://WWW.ENERGYSTAR.GOV/](https://www.energystar.gov/). Data reported includes, but is not limited to, the number of actual units consumed, by utility type per month, and associated start and end date(s) for that consumption.

(Refer to the following link for reporting guidance: www.gsa.gov/ucr)

6.05 HEATING AND AIR CONDITIONING (OCT 2020)

A. In all office areas, temperatures shall conform to local commercial equivalent temperature levels and operating practices in order to maximize tenant satisfaction. These temperatures shall be maintained throughout the leased Premises and service areas, regardless of outside temperatures, during the hours of operation specified in the Lease. The Lessor shall perform any necessary systems start-up required to meet the commercially equivalent temperature levels prior to the first hour of each day's operation. At all times, humidity shall be maintained below 60% relative humidity.

B. During non-working hours, heating temperatures shall be set no higher than 55° Fahrenheit, and air conditioning shall not be provided except as necessary to return Space temperatures to a suitable level for the beginning of working hours. Thermostats shall be secured from manual operation by key or locked cage. A key shall be provided to the Government's designated representative.

C. Thermal comfort. During all working hours, Lessor shall comply with ANSI/ASHRAE Standard 55, Thermal Environmental Conditions for Human Occupancy that corresponds with how the Building's HVAC system was designed to perform. At a minimum, Lessor must meet ASHRAE Standard 55-2004.

D. Warehouse or garage areas require heating and ventilation only. Cooling of this Space is not required. Temperature of warehouse or garage areas shall be maintained at a minimum of 50° Fahrenheit.

E. The Lessor shall conduct HVAC system balancing after any HVAC system alterations during the term of the Lease and shall make a reasonable attempt to schedule major construction outside of office hours.

F. Normal HVAC systems' maintenance shall not disrupt tenant operations.

G. **1,348** ABOA SF of the Premises shall receive cooling at all times (24 hrs a day, 365 days a year) for purposes of cooling the designated server rooms. The temperature of this room shall be maintained at **68** degrees F, with humidity control not to exceed 60% relative humidity, regardless of outside temperature or seasonal changes.

H. In addition to the server room requirements stated above, the following areas shall receive HVAC at all times:

1. S COOP Room (former large conference room) – 2,615 ABOA SF
2. STAC Space – 160 ABOA SF

** BTU, Temperature, humidity control, etc. requirements will be designed in accordance with proper equipment heat loads and per Tenant specifications.

I. The 24 hour, 365 days a year HVAC service(s) stated above shall be provided by the Lessor as part of the operating rent established under the Lease.

6.06 OVERTIME HVAC USAGE (OCT 2020)

- A. If there is to be a charge for heating or cooling outside of the Building's normal hours, such services shall be provided at the hourly rates set forth elsewhere in the Lease. Overtime usage services may be ordered by the Government's authorized representative only.
- B. When the cost of service is \$10,000 or less, the service may be ordered orally. An invoice shall be submitted to the official placing the order for certification and payment. Orders for services costing more than \$10,000 shall be placed using GSA Form 300, Order for Supplies or Services, or other approved service requisition procurement document. An invoice conforming to the requirements of this Lease shall be submitted to the official placing the order for certification and payment.
- C. Failure to submit a proper invoice within 120 days of providing overtime utilities shall constitute a waiver of the Lessor's right to receive any payment for such overtime utilities pursuant to this Lease.

6.07 JANITORIAL SERVICES (OCT 2021)

The Lessor shall maintain the Premises and all areas of the Property to which the Government has routine access, including high-touch surfaces (e.g., door knobs, light switches, handles, handrails, and elevator buttons) in a clean condition and shall provide supplies and equipment for the term of the Lease. The following schedule describes the level of services intended. Performance will be based on the LCO's evaluation of results, not the frequency or method of performance.

- A. Daily. Empty trash receptacles. Sweep entrances, lobbies, and corridors. Spot sweep floors, and spot vacuum carpets. Clean drinking fountains. Sweep and damp mop or scrub restrooms. Clean all restroom fixtures and replenish restroom supplies. Dispose of all trash and garbage generated in or about the Building. Wash inside and out or steam clean cans used for collection of food remnants from snack bars and vending machines. Dust horizontal surfaces that are readily available and visibly require dusting. Spray buff resilient floors in main corridors, entrances, and lobbies. Clean elevators and escalators. Remove carpet stains. Police sidewalks, parking areas, and driveways. Sweep loading dock areas and platforms. Clean glass entry doors to the Space. Clean all high-touch surfaces.
- B. Three times a week. Sweep or vacuum stairs.
- C. Weekly. Damp mop and spray buff all resilient floors in restrooms and health units. Sweep sidewalks, parking areas, and driveways (weather permitting).
- D. Every two weeks. Spray buff resilient floors in secondary corridors, entrance, and lobbies. Damp mop and spray buff hard and resilient floors in office Space.
- E. Monthly. Thoroughly dust furniture. Completely sweep and/or vacuum carpets. Sweep storage Space. Spot clean all wall surfaces within 70 inches of the floor.
- F. Every two months. Damp wipe restroom wastepaper receptacles, stall partitions, doors, window sills, and frames. Shampoo entrance and elevator carpets.
- G. Three times a year. Dust wall surfaces within 70 inches of the floor, vertical surfaces and under surfaces. Clean metal and marble surfaces in lobbies. Wet mop or scrub garages.
- H. Twice a year. Wash all interior and exterior windows and other glass surfaces. Strip and apply four coats of finish to resilient floors in restrooms. Strip and refinish main corridors and other heavy traffic areas.
- I. Annually. Wash all venetian blinds, and dust 6 months from washing. Vacuum or dust all surfaces in the Building more than 70 inches from the floor, including light fixtures. Vacuum all draperies in place. Strip and refinish floors in offices and secondary lobbies and corridors. Shampoo carpets in corridors and lobbies. Clean balconies, ledges, courts, areaways, and flat roofs.
- J. Every two years. Shampoo carpets in all offices and other non-public areas.
- K. Every five years. Dry clean or wash (as appropriate) all draperies.
- L. As required. Properly maintain plants and lawns. Provide initial supply, installation, and replacement of light bulbs, tubes, ballasts, and starters. Provide and empty exterior ash cans and clean area of any discarded cigarette butts.
- M. Pest control. Control pests as appropriate, using Integrated Pest Management techniques, as specified by the U.S. Environmental Protection Agency at [HTTPS://WWW.EPA.GOV/IPM/INTRODUCTION-INTEGRATED-PEST-MANAGEMENT](https://www.epa.gov/ipm/introduction-integrated-pest-management).
- N. The Government reserves the right to request that any equipment (e.g., supplemental HVAC units, generators, equipment, etc.) provided for as Tenant Improvements, and not required to be maintained by the Lessor elsewhere in the Lease, be provided for in the Lease as a negotiated increase in Operating Base scope. Such items may include, but not be limited to, Operations and Maintenance (O&M) of Supplemental HVAC or Generators (to include operating, maintenance, repair, and replacement throughout the term of the lease). Similarly, other increases in the cleaning scope unique to each tenant requirement shall be treated the same (e.g., gym janitorial, areas with public interaction that may need increased frequency, etc.) Such increase in scope of services shall be negotiated in good faith and shall be reflected as an increase in Operating Base and shall be included as part of the resulting rental consideration in the Lease.

6.08 SELECTION OF CLEANING PRODUCTS (OCT 2021)

For leases 10,000 RSF or greater where the Government is a sole occupant of the Building, the Lessor shall use cleaning products (including general

purpose cleaners, floor cleaners, hand soap, etc.) that meet applicable, statutory, environmentally preferable criteria related to biobased and recovered material content as outlined under the Green Procurement Compilation at [HTTPS://SFTOOL.GOV/GREENPROCUREMENT](https://sftool.gov/greenprocurement) and <https://sftool.gov/greenprocurement/green-products/5/cleaning-products/0>.

6.09 SELECTION OF PAPER PRODUCTS (OCT 2021)

For leases 10,000 RSF or greater where the Government is a sole occupant of the Building, the Lessor shall select paper and paper products (e.g., restroom tissue and paper towels) that meet applicable, statutory, environmentally preferable criteria related to recovered material content as outlined under the Green Procurement Compilation at [HTTPS://SFTOOL.GOV/GREENPROCUREMENT](https://sftool.gov/greenprocurement) and <https://sftool.gov/greenprocurement/green-products/5/cleaning-products/0>

6.10 SNOW REMOVAL (OCT 2020)

Lessor shall provide snow removal services for the Government on all days for which this Lease has designated normal hours. Lessor shall clear parking lots if the accumulation of snow exceeds two inches. Lessor shall clear sidewalks, walkways, loading docks, dock ramps, and entrances before accumulation exceeds 1.5 inches. The snow removal shall take place no later than 5:00 AM, without exception. Should accumulation continue throughout the day, the Lessor shall provide such additional snow removal services to prevent accumulation greater than the maximums specified in this paragraph. In addition to snow removal, the Lessor shall keep sidewalks, walkways, loading docks, dock ramps, and entrances free of ice during the normal hours. The Lessor shall remove excess buildup of sand and/or ice melt to minimize slipping hazards. If the Building entrance(s) has a northern exposure, then Lessor shall take additional measures (e.g., more frequent snow removal or application of ice-melting agents, warning signs, etc.) to protect the safety of pedestrians.

6.11 MAINTENANCE AND TESTING OF SYSTEMS (SEP 2013)

A. The Lessor is responsible for the total maintenance and repair of the leased Premises. Such maintenance and repairs include the site and private access roads. All equipment and systems shall be maintained to provide reliable, energy efficient service without unusual interruption, disturbing noises, exposure to fire or safety hazards, uncomfortable drafts, excessive air velocities, or unusual emissions of dirt. The Lessor's maintenance responsibility includes initial supply and replacement of all supplies, materials, and equipment necessary for such maintenance. Maintenance, testing, and inspection of appropriate equipment and systems shall be done in accordance with current applicable codes, and inspection certificates shall be displayed as appropriate. Copies of all records in this regard shall be forwarded to the Government's designated representative.

B. At the Lessor's expense, the Government reserves the right to require documentation of proper operations, inspection, testing, and maintenance of fire protection systems, such as, but not limited to, fire alarm, fire sprinkler, standpipes, fire pump, emergency lighting, illuminated exit signs, emergency generator, prior to occupancy to ensure proper operation. These tests shall be witnessed by the Government's designated representative.

6.12 MAINTENANCE OF PROVIDED FINISHES (OCT 2016)

A. Paint, wall coverings. Lessor shall maintain all wall coverings and high performance paint coatings in "like new" condition for the life of the Lease. All painted surfaces shall be repainted at the Lessor's expense, including the moving and returning of furnishings, any time during the occupancy by the Government if the paint is peeling or permanently stained, except where damaged due to the negligence of the Government. All work shall be done after normal working hours as defined elsewhere in this Lease. In addition to the foregoing requirement,

1. Lessor shall repaint common areas at least every three years.
2. Lessor shall perform cyclical repainting of the Space every **7.5** years of occupancy. This cost, including the moving and returning of furnishings, as well as disassembly and reassembly of systems furniture per manufacturer's warranty, shall be at the Lessor's expense.

B. Carpet and flooring.

1. Except when damaged by the Government, the Lessor shall repair or replace flooring at any time during the Lease term when:
 - a. Backing or underlayment is exposed;
 - b. There are noticeable variations in surface color or texture;
 - c. It has curls, upturned edges, or other noticeable variations in texture;
 - d. Tiles are loose; or,
 - e. Tears or tripping hazards are present.
2. Notwithstanding the foregoing, as part of the rental consideration, the Lessor shall replace all carpet and base coving in the Space every **7.5** years, with a product which meets the requirements in the "Floor Coverings and Perimeters" paragraph in this Lease.
3. Repair or replacement shall include the moving and returning of furnishings, including disassembly and reassembly of systems furniture per manufacturer's warranty, if necessary. Work shall be performed after the normal hours established elsewhere in this Lease.
4. Except when damaged by the Government, Lessor shall reseal flooring in warehouse areas whenever there are noticeable variations in surface color or texture.

6.13 ASBESTOS ABATEMENT (APR 2021)

If asbestos abatement work is to be performed in the Space after occupancy, the Lessor shall submit to the Government documentation that the abatement was done in accordance with OSHA, EPA, DOT, state, and local regulations and that final clearance is achieved.

6.14 ONSITE LESSOR MANAGEMENT (APR 2011)

The Lessor shall provide an onsite Building superintendent or a locally designated representative available to promptly respond to deficiencies, and immediately address all emergency situations.

6.15 IDENTITY VERIFICATION OF PERSONNEL (OCT 2021)

A. The Government reserves the right to verify identities of personnel with routine and/or unaccompanied access to the Government's Space, including both pre and post occupancy periods. The Lessor shall comply with GSA personal identity verification requirements, identified in the CIO P 2181.1 GSA HSPD-12 Personal Identity Verification and Credentialing Handbook. The Lessor can find the CIO policy and additional information at [HTTP://WWW.GSA.GOV/HSPD12](http://www.gsa.gov/hspd12). This policy requires the Government to conduct background investigations and make HSPD-12 compliant suitability determinations for all persons with routine or unaccompanied access to Government leased Space. By definition, this includes at a minimum each employee of the Lessor, as well as employees of the Lessor's contractors or subcontractors who will provide building operating services requiring routine access to the Government's leased Space for a period greater than 6 months. The Government may also require this information for the Lessor's employees, contractors, or subcontractors who will be engaged to perform alterations or emergency repairs in the Government's Space.

B. Application Process: The background investigation will be done using the Government's prescribed process. The Lessor must provide information on each of their contractor/personnel meeting the above criteria to the Government, whereupon each identified contractor/personnel will be notified with instructions for completing the identity verification application within a given time frame. The application process will include completing supplemental information forms that must be inputted into the identity verification system in order for the application to be considered complete. Additionally, the Lessor must ensure prompt completion of the fingerprint process for their contractor/personnel. Email notifications will be sent with instructions on the steps to be taken to schedule an appointment for fingerprinting at an approved regional location along with instructions on how to complete the background investigation application.

C. The Lessor must ensure the Lease Contracting Officer (or the Lease Contracting Officer's designated representative) has all of the requested documentation timely to ensure the completion of the investigation.

D. Based on the information furnished, the Government will conduct background investigations. The Lease Contracting Officer will advise the Lessor in writing if a person fails the investigation, and, effective immediately, that person will no longer be allowed to work or be assigned to work in the Government's Space.

E. Throughout the life of the Lease, the Lessor shall provide the same data for any new employees, contractors, or subcontractors who will be assigned to the Government's Space in accordance with the above criteria. In the event the Lessor's contractor or subcontractor is subsequently replaced, the new contractor or subcontractor is not required to have persons re-apply who were cleared through this process while associated with the former contractor or subcontractor in accordance with GSA policy. The Lessor shall require each cleared person to re-apply and obtain a new clearance in accordance with GSA policy.

F. The Lessor is accountable for not allowing contractors to start work without the successful completion of the appropriate background investigation as required by GSA policy.

G. Access Card Retrieval/Return: Upon an Entry on Duty notification, the Government will issue a Personal Identity Verification (PIV) credential that is sometimes referred to as a GSA Access card. Lessors are responsible for all PIV credential issued to their contractors/personnel pursuant to this Lease. Lessors are specifically responsible for ensuring that all GSA PIV access cards are returned to the Lease Contracting Officer or their designee whenever their employees or a contractor no longer require access to the Space (such as When no longer needed for contract performance, upon completion of the Contractor employee's employment, and upon contract completion or termination). Additionally, the Lessor must notify the Lease Contracting Officer or their designee whenever a GSA PIV Access card is lost or stolen in which event the Lessor may be responsible for reimbursing the Government for replacement credentials at the current cost per PIV HSPD12 credential. Unreturned PIV Access cards will be considered as lost or stolen cards.

H. The Government reserves the right to conduct additional background checks on Lessor personnel and contractors with routine access to Government leased Space throughout the term of the Lease to determine who may have access to the Premises.

I. The Lease Contracting Officer may delay final payment under a contract if the Contractor fails to comply with these requirements.

J. The Lessor shall insert this paragraph in all subcontracts when the subcontractor is required to have physical access to a federally controlled facility or access to a federal information system.

6.16 SCHEDULE OF PERIODIC SERVICES (OCT 2020)

Upon acceptance of the Space, the Lessor shall provide the LCO with a detailed written schedule of all periodic services and maintenance to be performed other than daily, weekly, or monthly.

6.17 LANDSCAPING (OCT 2019)

A. For leases 10,000 RSF or greater where the Government is the sole occupant of the building, the Lessor shall use landscaping products that meet applicable, statutory, environmentally preferable criteria related to recycled content as outlined under the Green Procurement Compilation at [HTTPS://SFTOOL/GREENPROCUREMENT](https://sftool/greenprocurement) AND [HTTPS://SFTOOL.GOV/GREENPROCUREMENT/GREEN-PRODUCTS/6/LANDSCAPING-PRODUCTS/0](https://sftool.gov/greenprocurement/green-products/6/landscaping-products/0).

B. Landscape management practices shall prevent pollution by:

1. Employing practices which avoid or minimize the need for herbicides, fertilizers and pesticides; and
2. Composting/recycling all yard waste.

C. INTENTIONALLY DELETED

6.18 LANDSCAPE MAINTENANCE (APR 2011)

Landscape maintenance shall be performed during the growing season at not less than a weekly cycle and shall consist of watering, weeding, mowing, and policing the area to keep it free of debris. Pruning and fertilization shall be done on an as-needed basis. In addition, dead, dying, or damaged plants shall be replaced.

6.19 RECYCLING (JUN 2012)

A. For Leases 10,000 rentable SF or greater, with a Lease term greater than six months, the Lessor shall establish a recycling program for (at a minimum) paper, corrugated cardboard, glass, plastics, and metals where local markets for recovered materials exist.

B. Where state or local law, code, or ordinance requires recycling programs for the Premises, Lessor shall comply with such state and/or local law, code, or ordinance.

C. When implementing any recycling program, the Lessor shall provide an easily accessible, appropriately sized area (2 SF per 1,000 SF of Building gross floor area) that serves the Space for the collection and storage of materials for recycling. Telecom rooms are not acceptable as recycling space. During the Lease term, the Lessor agrees, upon request, to provide the Government with additional information concerning recycling programs maintained in the Building and in the Space.

D. For leases 10,000 rentable SF or greater, the Lessor shall submit a Building recycling service plan with floor plans annotating recycling area(s) as part of DID's, if applicable, to be reflected on the CD submission.

6.20 RANDOLPH-SHEPPARD COMPLIANCE (SEP 2013)

During the term of the Lease, the Lessor may not establish vending facilities within the leased Space that will compete with any Randolph-Sheppard vending facilities.

6.21 SAFEGUARDING AND DISSEMINATION OF CONTROLLED UNCLASSIFIED INFORMATION (CUI) BUILDING INFORMATION (FEB 2020)

This clause applies to all recipients of CUI building information (which falls within the CUI Physical Security category), including offerors, bidders, awardees, contractors, subcontractors, lessors, suppliers and manufacturers.

Marking CUI. Contractors must submit any contractor-generated documents that contain building information to GSA for review and identification of any CUI building information that may be included. In addition, any documents GSA identifies as containing CUI building information must be marked in accordance with the Order and the Marking Controlled Unclassified Information Handbook (the current version may be found at <https://www.archives.gov/files/cui/20161206-cui-marking-handbook-v1-1.pdf>) before the original or any copies are disseminated to any other parties. If CUI content is identified, the CO may direct the contractor, as specified elsewhere in this contract, to imprint or affix CUI document markings (CUI) to the original documents and all copies, before any dissemination, or authorized GSA employees may mark the documents.

1. Authorized recipients.

- a. Building information designated as CUI must be protected with access strictly controlled and limited to those individuals having a Lawful Government Purpose to access such information, as defined in 32 C.F.R. § 2002.4(bb). Those with such a Lawful Government Purpose may include Federal, state and local government entities, and non-governmental entities engaged in the conduct of business on behalf of or with GSA. Non-governmental entities may include architects, engineers, consultants, contractors, subcontractors, suppliers, utilities, and others submitting an offer or bid to GSA, or performing work under a GSA contract or subcontract. Recipient contractors must be registered as "active" in the System for Award Management (SAM) database at www.sam.gov, and have a Lawful Government Purpose to access such information. If a subcontractor is not registered in the SAM database and has a Lawful Government Purpose to possess CUI building information in furtherance of the contract, the subcontractor must provide to the contractor its DUNS number or its tax ID number and a copy of its business license. The contractor must keep this information related to the subcontractor for the duration of the contract and subcontract.
- b. All GSA personnel and contractors must be provided CUI building information when needed for the performance of official Federal, state, and local government functions, such as for code compliance reviews and the issuance of building permits. Public safety entities such as fire and utility departments may have a Lawful Government Purpose to access CUI building information on a case-by-case basis. This clause must not prevent or encumber the necessary dissemination of CUI building information to public safety entities.

2. Dissemination of CUI building information:

- a. By electronic transmission. Electronic transmission of CUI information outside of the GSA network must use session encryption (or alternatively, file encryption) consistent with National Institute of Standards and Technology (NIST) SP 800-171. Encryption must be through an approved NIST algorithm with a valid certification, such as Advanced Encryption Standard or Triple Data

Encryption Standard, in accordance with Federal Information Processing Standards Publication 140-2, Security Requirements for Cryptographic Modules, as required by GSA policy.

- b. By nonelectronic form or on portable electronic data storage devices. Portable electronic data storage devices include CDs, DVDs, and USB drives. Nonelectronic forms of CUI building information include paper documents, photographs, and film, among other formats.

- i. By mail. Contractors must only use methods of shipping that provide services for monitoring receipt such as track and confirm, proof of delivery, signature confirmation, or return receipt.

- ii. In person. Contractors must provide CUI building information only to authorized recipients with a Lawful Government Purpose to access such information. Further information on authorized recipients is found in section 1 of this clause.

- 3. Record keeping. Contractors must maintain a list of all entities to which CUI is disseminated, in accordance with sections 2 and 3 of this clause. This list must include, at a minimum:

- 1) The name of the state, Federal, or local government entity, utility, or firm to which CUI has been disseminated;
- 2) The name of the individual at the entity or firm who is responsible for protecting the CUI building information, with access strictly controlled and limited to those individuals having a Lawful Government Purpose to access such information;
- 3) Contact information for the named individual; and
- 4) A description of the CUI building information provided.

Once "as built" drawings are submitted, the contractor must collect all lists maintained in accordance with this clause, including those maintained by any subcontractors and suppliers, and submit them to the CO. For Federal buildings, final payment may be withheld until the lists are received.

- 4. Safeguarding CUI documents. CUI building information (both electronic and paper formats) must be stored within controlled environments that prevent unauthorized access. GSA contractors and subcontractors must not take CUI building information outside of GSA or their own facilities or network, except as necessary for the performance of that contract. Access to the information must be limited to those with a Lawful Government Purpose for access.
- 5. Destroying CUI building information. When no longer needed, CUI building information must either be returned to the CO or destroyed in accordance with guidelines in NIST Special Publication 800-88, Guidelines for Media Sanitization.
- 6. Notice of disposal. The contractor must notify the CO that all CUI building information has been returned or destroyed by the contractor and its subcontractors or suppliers in accordance with paragraphs 4 and 5 of this clause, with the exception of the contractor's record copy. This notice must be submitted to the CO at the completion of the contract to receive final payment. For leases, this notice must be submitted to the CO at the completion of the lease term.
- 7. CUI security incidents. All improper disclosures or receipt of CUI building information must be immediately reported to the CO and the GSA Incident Response Team Center at gsa-ir@gsa.gov. If the contract provides for progress payments, the CO may withhold approval of progress payments until the contractor provides a corrective action plan explaining how the contractor will prevent future improper disclosures of CUI building information. Progress payments may also be withheld for failure to comply with any provision in this clause until the contractor provides a corrective action plan explaining how the contractor will rectify any noncompliance and comply with the clause in the future.
- 8. Subcontracts. The contractor and subcontractors must insert the substance of this clause in all subcontracts.

6.22 INDOOR AIR QUALITY (OCT 2019)

A. The Lessor shall control airborne contaminants at the source and/or operate the Space in such a manner that indoor air quality action limits identified in the PBS Desk Guide for Indoor Air Quality Management (Companion to GSA Order PBS 1000.8), OSHA regulatory limits, and generally accepted consensus standards are not exceeded.

B. The Lessor shall avoid the use of products containing toxic, hazardous, carcinogenic, flammable, or corrosive ingredients as determined from the product label or manufacturer's safety data sheet. The Lessor shall use available odor-free or low odor products when applying paints, glues, lubricants, and similar wet products. When such equivalent products are not available, lessor shall use the alternate products outside normal working hours. Except in an emergency, the Lessor shall provide at least 72 hours advance notice to the Government before applying chemicals or products with noticeable odors in occupied Spaces and shall adequately ventilate those Spaces during and after application.

C. The Lessor shall serve as first responder to any occupant complaints about indoor air quality (IAQ). The Lessor shall promptly investigate such complaints and implement the necessary controls to address each complaint. Investigations shall include testing as needed, to ascertain the source and severity of the complaint.

D. The Government reserves the right to conduct independent IAQ assessments and detailed studies in Space that it occupies, as well as in space serving the Space (e.g., common use areas, mechanical rooms, HVAC systems, etc.). The Lessor shall assist the Government in its assessments and detailed studies by:

- 1. Making available information on Building operations and Lessor activities;
- 2. Providing access to Space for assessment and testing, if required; and
- 3. Implementing corrective measures required by the LCO. The Lessor shall take corrective action to correct any tests or measurements that do not meet GSA policy action limits in the PBS Desk Guide for Indoor Air Quality Management (Companion to GSA Order PBS 1000.8), OSHA regulatory limits, and generally accepted consensus standards.

E. The Lessor shall provide to the Government safety data sheets (SDS) upon request for the following products prior to their use during the term of the Lease: adhesives, caulking, sealants, insulating materials, fireproofing or firestopping materials, paints, carpets, floor and wall patching or leveling

materials, lubricants, clear finish for wood surfaces, janitorial cleaning products, pesticides, rodenticides, and herbicides. The Government reserves the right to review such products used by the Lessor within the Space, common building areas, ventilation systems and zones serving the Space, and the area above suspended ceilings and engineering space in the same ventilation zone as the Space.

F. The Lessor shall use high efficiency (HEPA) filtration vacuums for cleaning and minimum MERV 10 rated ventilation system filtration whenever feasible.

G. The Lessor is encouraged to comply with best practices outlined in Appendix D- Indoor Air Quality in GSA Leased Facilities (Best Practices) within the PBS Desk Guide for Indoor Air Quality Management (Companion to GSA Order PBS 1000.8).

6.23 RADON IN AIR (OCT 2016)

A. The radon concentration in the air of the Space shall be less than 4 picoCuries per liter (pCi/L) for childcare and 25 pCi/L for all other space, herein called "GSA action levels."

B. Initial Testing:

1. The Lessor shall:
 - a. Test for radon that portion of Space planned for occupancy by the Government in ground contact or closest to the ground up to and including the second floor above grade (Space on the third or higher floor above grade need not be measured);.
 - b. Report the results to the LCO upon award; and
 - c. Promptly carry out a corrective action program for any radon concentration which equals or exceeds the GSA action levels.

2. Testing sequence. The Lessor shall measure radon by the standard test in sub-paragraph D.1, completing the test not later than 150 days after award, unless the LCO decides that there is not enough time to complete the test before Government occupancy, in which case the Lessor shall perform the short test in sub-paragraph D.2.

3. If the Space offered for Lease to the Government is in a Building under construction or proposed for construction, the Lessor, if possible, shall perform the standard test during buildout before Government occupancy of the Space. If the LCO decides that it is not possible to complete the standard test before occupancy, the Lessor shall complete the short test before occupancy and the standard test not later than 150 days after occupancy.

C. Corrective Action Program:

1. Program Initiation and Procedures.
 - a. If either the Government or the Lessor detects radon at or above the GSA action levels at any time before Government occupancy, the Lessor shall carry out a corrective action program which reduces the concentration to below the GSA action levels before Government occupancy.
 - b. If either the Government or the Lessor detects a radon concentration at or above the GSA action levels at any time after Government occupancy, the Lessor shall promptly carry out a corrective action program which reduces the concentration to below the GSA action levels.
 - c. If either the Government or the Lessor detects a radon concentration at or above the GSA action levels at any time after Government occupancy, the Lessor shall promptly restrict the use of the affected area and shall provide comparable temporary space for the tenants, as agreed to by the Government, until the Lessor carries out a prompt corrective action program which reduces the concentration to below the GSA action levels and certifies the Space for re-occupancy.
 - d. The Lessor shall provide the Government with prior written notice of any proposed corrective action or tenant relocation. The Lessor shall promptly revise the corrective action program upon any change in Building condition or operation which would affect the program or increase the radon concentration to or above the GSA action levels.
2. The Lessor shall perform the standard test in sub-paragraph D.1 to assess the effectiveness of a corrective action program. The Lessor may also perform the short test in sub-paragraph D.2 to determine whether the Space may be occupied but shall begin the standard test concurrently with the short test.
3. All measures to accommodate delay of occupancy, corrective action, tenant relocation, tenant re-occupancy, or follow-up measurement, shall be provided by the Lessor at no additional cost to the Government.
4. If the Lessor fails to exercise due diligence or is otherwise unable to reduce the radon concentration promptly to below the GSA action levels, the Government may implement a corrective action program and deduct its costs from the rent.

D. Testing Procedures:

1. Standard Test. Place alpha track detectors throughout the required area for 91 or more days so that each covers no more than 2,000 ABOA SF. Use only devices listed in the EPA Radon Measurement Proficiency Program (RMP) application device checklists. Use a laboratory rated proficient in the EPA RMP to analyze the devices. Submit the results and supporting data (sample location, device type, duration, radon measurements, laboratory proficiency certification number, and the signature of a responsible laboratory official) within 30 days after the measurement.
2. Short Test. Place alpha track detectors for at least 14 days, or charcoal canisters for 2 days to 3 days, throughout the required area so that each covers no more than 2,000 ABOA SF, starting not later than 7 days after award. Use only devices listed in the EPA RMP application device checklists. Use a laboratory rated proficient in the EPA RMP to analyze the devices. Submit the results and supporting data within 30 days after the measurement. In addition, complete the standard test not later than 150 days after Government occupancy.

6.24 RADON IN WATER (JUN 2012)

A. If the water source is not from a public utility, the Lessor shall demonstrate that water provided to the Premises is in compliance with EPA requirements and shall submit certification to the LCO prior to the Government occupying the Space.

B. If the EPA action level is reached or exceeded, the Lessor shall institute appropriate abatement methods which reduce the radon levels to below this action.

6.25 HAZARDOUS MATERIALS (SEP 2013)

- A. The leased Space shall be free of hazardous materials, hazardous substances, and hazardous wastes, as defined by and according to applicable Federal, state, and local environmental regulations. Should there be reason to suspect otherwise, the Government reserves the right, at Lessor's expense, to require documentation or testing to confirm that the Space is free of all hazardous materials.
- B. Lessor shall, to the extent of its knowledge, notify Government of the introduction of any hazardous materials onto the Property by Lessor or others, including but not limited to, co-tenants occupying Space in the Building.
- C. All hazardous materials stored in the Space must be kept and maintained according to applicable Federal, State, and local environmental regulations. The Government will notify Lessor of any hazardous materials it will store in the Space.

6.26 MOLD (OCT 2021)

- A. Actionable mold is either visible mold or airborne mold of types and concentrations in excess of that found in the local outdoor air or non-problematic control areas elsewhere in the same building, whichever is lower. The Lessor shall safely remediate all actionable mold in accordance with sub-paragraph C below.
- B. The Lessor shall provide Space to the Government that is free from ongoing water leaks or moisture infiltration. The Space and ventilation zones serving the Space shall also be free of actionable mold.
- C. Within 48 hours following a flood, plumbing leak or heavy rain whereby the Government Space or air zones serving the Space may have become moisture damaged, the Lessor shall repair any leakage sources and remediate the moisture damage. Whenever moisture damage or infiltration persists such that: mold is visible, mold odors are present, or occupants register complaints about mold, the Lessor shall employ a board-certified industrial hygienist to inspect and evaluate the Space and air zones serving the Space for visible and/or actionable mold presence; inspection shall take place as soon as possible but no later than 15 calendar days following identification of a potential mold issue as described above. Notwithstanding the above, when a board-certified industrial hygienist is not available to perform this inspection, the Lessor may, upon written request and the Government's approval, employ an environmental consultant experienced in mold assessment. The Lessor shall promptly furnish the mold report to the Government. After all leaks have been identified and corrected, the Lessor shall safely remediate all visible moldy and/or water damaged materials identified by the consultant using a qualified remediation contractor following the methods identified in "Mold Remediation in Schools and Commercial Buildings" (EPA 402-K-01-001, September 2008 or ANSI/IICRC S520-2015: Standard for Professional Mold Remediation) and all applicable state laws pertaining to mold remediation practices. Remediation shall also remove actionable mold levels. Remediation shall be completed within a time frame acceptable to the Lease Contracting Officer which shall be no later than 90 calendar days following confirmation of the presence of actionable mold.
- D. The presence of actionable mold in the Premises may be treated as a Casualty, as determined by the Government, in accordance with the Fire and Other Casualty clause contained in the General Clauses of this Lease. In addition to the provisions of the Fire and Other Casualty clause of this Lease, should a portion of the Premises be determined by the Government to be un-tenantable due to an act of negligence by the Lessor or his agents, the Lessor shall provide reasonably acceptable alternative Space at the Lessor's expense, including the cost of moving, and any required alterations.

6.27 OCCUPANT EMERGENCY PLANS (OCT 2020)

The Lessor is required to cooperate, participate, and comply with the development and implementation of the Government's Occupant Emergency Plan (OEP) and a supplemental Shelter-in Place (SIP) Plan. Periodically, the Government may request that the Lessor assist in reviewing and revising its OEP and SIP. The Plan, among other things, will include evacuation procedures and an annual emergency evacuation drill, emergency shutdown of air intake procedures, and emergency notification procedures for the Lessor's Building engineer or manager, Building security, local emergency personnel, and Government agency personnel.

6.28 FLAG DISPLAY (OCT 2016)

If the Lessor has supplied a flagpole on the Property as a requirement of this Lease, the Lessor shall be responsible for flag display on all workdays and Federal holidays. The Lessor may illuminate the flag in lieu of raising and lowering the flag daily. The Lessor shall register with the Federal Protective Service (FPS) MegaCenter in order to receive notifications regarding when flags shall be flown at half-staff, as determined by Executive Order.

SECTION 7 ADDITIONAL TERMS AND CONDITIONS

7.01 SECURITY REQUIREMENTS (OCT 2016)

The Lessor agrees to the requirements of Federal Security Level **III** attached to this Lease.

7.02 MODIFIED LEASE PARAGRAPHS (OCT 2016)

The following paragraphs have been modified in this Lease:

- 1.01 THE PREMISES (OCT 2016)
- 1.02 EXPRESS APPURTENANT RIGHTS (SEP 2013)
- 1.08 TENANT IMPROVEMENT RENTAL ADJUSTMENT (OCT 2016)
- 1.10 BUILDING SPECIFIC AMORTIZED CAPITAL (SEP 2012)
- 1.11 BUILDING SPECIFIC AMORTIZED CAPITAL RENTAL ADJUSTMENT (SEP 2013)
- 1.18 BUILDING IMPROVEMENTS (MAR 2016)
- 3.40 HEATING, VENTILATION, AND AIR CONDITIONING - SHELL (OCT 2020)
- 6.10 SNOW REMOVAL (OCT 2020)
- 6.12 MAINTENANCE OF PROVIDED FINISHES (OCT 2016)
- 6.25 HAZARDOUS MATERIALS (SEP 2013)

~~7.03 ADDENDUM TO GSA FORM 3517B, GENERAL CLAUSES, NO FEDERALLY ELECTED OFFICIALS TO BENEFIT (OCT 2018)~~
INTENTIONALLY DELETED**7.04 WAREHOUSE AND LAB SPACE**

Approximately **22,125** ABOA SF shall be warehouse and lab space. Lease provisions in Section 7.05 through 7.19 shall apply to this area only.

7.05 CLEAR CEILING HEIGHT REQUIREMENTS (WAREHOUSE) (MAY 2014)

Of the 22,125 SF of warehouse and lab space, the ceiling heights in these areas shall be **17'6" in storage areas and 24'0" in Labs**. Bulkheads and hanging or surface mounted light fixtures which impede traffic ways shall be avoided.

~~7.06 BAY WIDTH, BAY DEPTH, AND COLUMN SPACING REQUIREMENTS (WAREHOUSE) (MAY 2014)~~
INTENTIONALLY DELETED**7.07 BUILDING SHELL REQUIREMENTS (WAREHOUSE) (OCT 2016)**

A. The Building Shell shall be designed, constructed, and maintained in accordance with the standards set forth herein and completed prior to acceptance of Space. For pricing, fulfillment of all requirements not specifically designated as TIs, Building Specific Amortized Capital, Operating Costs, or other rent components as indicated shall be deemed included in the Shell Rent.

B. Base structure and Building enclosure components shall be complete. All common areas accessible by the Government, such as lobbies, fire egress corridors and stairwells, elevators, garages, and service areas, shall be complete. Restrooms shall be complete and operational with an adequate number of fixtures for men and women to meet current local codes based on building occupancy and use. All newly installed Building shell components, including but not limited to, heating and ventilation, electrical, ceilings, sprinklers, etc., shall be furnished, installed, and coordinated with TIs. Circulation corridors are provided as part of the base Building only on multi-tenanted buildings where the corridor is common to more than one tenant. In single tenant buildings, only the fire egress corridor(s) necessary to meet code is provided as part of the shell.

C. The Building Shell rental rate shall also include, but is not limited to, costs included listed under Section II of GSA Form 1217, Lessor's Annual Cost Statement, including insurance, taxes, lease commission and management, in addition to profit, reserve costs and loan financing for the Building.

7.08 LOADING DOCKS—SHELL (WAREHOUSE) (MAY 2014)

A. Lessor shall provide a minimum of **two** loading docks with hydraulic metal ramps, **two** loading docks without hydraulic metal ramps, and **one** concrete drive up ramp for the exclusive use of the Government.

B. Lessor shall equip each dock with two molded rubber bumpers (at least 6 inches by 12 inches by 14 inches) and heavy-duty bump blocks (the dock must be fully protected with edge guards and dock bumpers). Lessor shall equip each dock with exterior dock seals to prevent the exchange of air from indoors to outdoors and vice versa when the trailer docked for loading or unloading. The entire loading dock bay shall be enclosed unless otherwise specified by Lessee. Lessor shall provide a means to reduce the infiltration of outside debris into the building at the entrances and exits at loading docks and service entrances.

C. Dock-high doors shall be a minimum of 8' wide by 9' high and shall be approximately 48" above finished exterior grade unless otherwise specified in the Agency Special Requirements. Doors shall be insulated (R8 or better) with 2" angled, metal track and manual push-up. Door shall be spring loaded to assist opening and to safe return to the closed position. Weather-tight seals shall be provided around all 4 sides of the doors.

D. Drive-in doors shall be a minimum of 12' wide by 16' high unless otherwise specified in the Agency Special Requirements. The slope of the ramp shall not exceed 8.3% or by local code, whichever is more stringent. Doors shall be insulated (R8 or better) with 2" angled, metal track with chain hoist for opening and closing. Weather-tight seals shall be provided around all 4 sides of the doors.

E. Lessor shall equip **two** of the docks with **hydraulic dock levelers/ramps**. If exterior to the building, the entire loading dock bay shall be enclosed unless otherwise specified by Lessee. Any open loading docks must be covered at least 1,200 mm (4 feet) beyond the edge of the loading dock platform over the loading berth. Lessor shall provide a means to reduce the infiltration of outside debris into the building at the entrances and exits at loading docks and service entrances.

F. Lessor shall provide sufficient ventilation to remove carbon monoxide even when doors and windows are shut. Ventilation air intakes must be at least 25 feet away from loading docks, garage entries, and similar carbon monoxide contamination points. Docks shall be separated by at least 50 feet in any direction from utility rooms, utility mains, and service entrances, including electrical, telephone/data, fire detection/alarm systems, fire suppression water mains, cooling and heating mains, etc. All regular and emergency fuel storage locations shall be located away from loading docks.

G. All dock wells shall be level throughout. Each dock shall have **n roll-up or coiling type industrial steel warehouse dock doors** with lock. The loading dock area shall be nearly flat with a 1:50 slope for drainage. The minimum headroom in the loading berth and apron space is 4,600 mm (15 feet). When a steeper slope is required in the apron area, the headroom must increase with a gradient allowance to permit trucks to traverse the grade change. If the approach to the loading dock is ramped, the design must permit easy snow removal.

H. Lessor shall equip each loading dock with adjustable lights capable of illuminating the truck or van interior. Each dock shall have either a trailer lock or wheel chocks chained to the platforms. Where specified by Government on Exhibit **A** (Floor Plans), the Lessor shall provide a ramp from the loading dock down to the vehicle parking area to facilitate deliveries from small trucks and vans. This ramp must have a maximum 8.3% slope. Public and loading dock access must not be from the same point of access (at least one personnel door shall be provided in addition to overhead doors).

I. All docks shall provide shelter to people and materials in inclement weather. Operating controls for individual dock doors, dock levelers and lights shall be located on the interior wall adjacent to each dock door.

J. Service dock access may be from an alley, from a below grade ramp, or from a site circulation drive. Lessor shall provide sufficient space for an **standard box truck** to maneuver and service the facility, and also to screen the service drive as much as possible. At a minimum, Lessor shall provide a truck turning radius sized for **box trucks** trucks for all loading docks. The service drive must always be separated from access to the parking area. One-way design for service traffic is preferred in order to avoid the need for large turning areas. The service area of the facility must not interfere with public access roadways.

K. Lessor shall provide at least one off-street berth for loading and unloading. Loading berths must be located adjacent to the loading dock areas. Unless otherwise specified by local zoning regulations, a single berth must be a minimum of 4,600 mm (15 feet) wide and sized for the longest vehicle servicing the building as determined by Lessee. Additional loading berths do not need to be wider than 3,600 mm (12 feet) if they are contiguous with another loading berth. Lessor shall provide an apron space in front of the loading berth for vehicle maneuvering equal to the length of the berth plus 600 mm (2 feet). The apron must be relatively flat and have positive drainage with a minimum slope of 2%. The minimum headroom in the loading berth and apron space is 4,600 mm (15 feet). If programming forces a steeper slope in the apron area, the headroom should increase with a gradient allowance to allow trucks to traverse the grade change.

L. Loading dock areas must be separated and visually screened (wherever practical) from the main public building entrance(s). Lessor shall provide an internal staging area adjacent to the loading dock. The staging area must not interfere with emergency egress from the building. Loading docks must have a direct route to freight elevators (if any) and be sized to accommodate the transport of supplies, equipment replacement parts, and building goods. If provided for, a dock manager's room must have visual control of the entire dock area as well as the building entrance and exit. Service circulation must be separated from public areas such as lobbies, corridors, and elevators. Loading dock stairs must be on the driver's left when backing into the dock. The grade of the apron must slope away from the loading dock and shall not exceed an 8.3% slope.

M. Trash rooms must be located adjacent to loading docks or service entrances. Trash rooms must be sized to accommodate the trash handling equipment required and provide storage for trash and recycling generated during a three day occupancy of the building. Space must be allowed for sorting and recycling of paper, bottles and cans, metals, and other materials. Facilities that use trash containers that are picked up by vendors must have at least one loading berth for the trash container.

7.09 FLOORS AND FLOOR LOAD—SHELL (WAREHOUSE) (OCT 2019)

A. All adjoining floor areas shall be of a common level, and meet ASTM Standard E1155, with a minimum levelness of **Ff35** and **FL25**. Warehouse areas shall have a minimum live load capacity of **350** pounds per square foot. The Government may require Lessor to provide written certification of the floor load capacity, at no cost to the Government, by a registered Professional Engineer. The Government may also require calculations and structural drawings at no cost to the Government, by a registered Professional Engineer.

B. Warehouse floor surfacing shall have the appropriate surface performance for the operations being performed as outlined in the following table and as verified with in situ testing. The appropriate surface performance shall be maintained throughout the life of the lease term. Periodic in situ testing shall be performed at a frequency appropriate for the expected useful life of the floor attribute required to be maintained:

	DUTY	APPLICATION	PERFORMANCE
a. Special	Unique requirements	One or more of the following attributes 1. Very heavy-duty operational or equipment traffic 2. Unique surface reflectance criteria 3. Anti slip/ anti skid	In addition to the Class 1-3 below Note: should one or more of the application attributes be

		4. Chemical resistance 5. Anti static 6. Critical free movement floor 7. Critical defined movement floor 8. Critical dust control 9. Joint free	critical for the performance of the required operation seek specialized help in tailoring the appropriate requirements)
b. Class 1	Very High Abrasion, steel wheel traffic and impact	Heavy-duty duty impact from pallets/ skid steer forks	<.1mm abrasion resistance Maintenance free joints
c. Class 2	High-abrasion steel wheel or hard wheel traffic	Medium—	<.3 mm abrasion resistance Maintenance free joints
d. Class 3	light abrasion—rubber tire and foot traffic	Light-duty	Dust free finish

- b. Floor Hardeners, or coatings shall be utilized to achieve the wear performance for the appropriate duty class required in the above table. Coatings, such as polyurethanes membranes are only acceptable for class 3. Should hardeners be required then nano-lithium silicates or other environmentally friendly practices must be employed.
- c. In situ abrasion resistance required of class 2 or 3 shall be determined in accordance with BS EN 13892-4: 2002

7.10 ELECTRICAL—SHELL (WAREHOUSE) (OCT 2019)

A. The Lessor shall be responsible for meeting the applicable requirements of local codes and ordinances. When codes conflict, the more stringent standard shall apply. The electrical panel supplying electrical service to the warehouse Space shall be located in an enclosed room. The enclosed room should only contain electrical infrastructure and not used for any other purpose. The enclosure must be located within the warehouse Space to be leased and not serve other non-leased facilities. The enclosure shall have door(s) fitted with an automatic deadlocking latch bolt with a minimum throw of 1/2 inch. The electrical distribution panels enclosed in the electrical room shall include: single-phase 120/240 volt service or 3-phase 120/208 volt for leased spaces under 10,000 RSF; 3-phase 120/208 volt service for leased spaces between 10,000 and 25,000 RSF; and 3-phase 277/480 volt and 3-phase 120/208 volt service for leased spaces over 25,000 RSF. A minimum of **150** amps at 120/240 volts per **4,000** rentable square feet of leased Space inclusive of lighting circuits (but assuming no air conditioning mechanical load) shall be provided to circuit breaker panel boxes in the Space. All switchgear, fuses, and circuit breakers shall be plainly marked or labeled to identify circuits and/or equipment supplied through them. All office Space shall have 4-wire with bond, 60 hertz electric service available. In no event shall such power distribution (not including lighting and HVAC) for the office Space fall below 4 watts per ABOA SF of Office area. Lessor must provide one watt per ABOA SF for electrical power distribution for warehouse areas.

B. Main power distribution switchboards and distribution and lighting panel boards shall be circuit breaker type with copper buses that are properly rated to provide the calculated fault circuits. All power distribution panel boards shall be supplied with separate equipment ground buses. All power distribution equipment shall be required to handle the actual specified and projected loads and 10 percent spare load capacity. Distribution panels are required to accommodate circuit breakers for the actual calculated needs and 10 percent spare circuits that will be equivalent to the majority of other circuit breakers in the panel system. Fuses and circuit breakers shall be plainly marked or labeled to identify circuits or equipment supplied through them.

C. Convenience outlets shall be installed in accordance with NFPA Standard 70, National Electrical Code, or local code, whichever is more stringent. The Lessor shall provide duplex utility outlets in restrooms, corridors, and dispensing areas.

7.11 DRINKING FOUNTAINS (WAREHOUSE) (OCT 2018)

Lessor shall provide at least one chilled water fountain for the Premises. If more than one fountain is required by local building codes based on general warehouse use of the premises, they also shall be provided by Lessor as part of the shell rental. The fountains shall comply with Section F211 of the Architectural Barriers Act Accessibility Standard. Potable is defined as water meeting current EPA primary drinking water standards or more stringent, applicable state or local regulations. The Lessor shall serve as first responder to any occupant complaints about drinking water. The Lessor shall promptly investigate any such complaints and implement the necessary controls to address the complaints and maintain potable water conditions.

7.12 LIGHTING: INTERIOR AND PARKING—SHELL (WAREHOUSE) (OCT 2020)

Warehouse/Storage Space & Overall:

A. Lessor shall provide a minimum lighting level of 10 foot-candles, as measured 30 inches above the floor, in aisles and open storage areas in the warehouse Space with the storage racks full. Lessor shall provide a minimum lighting level in the shipping and receiving areas of 30 foot-candles, when measured 30 inches above the floor. Lessor must provide lighting that is equivalent to the energy efficiency requirements in any office areas. Lessor shall provide, as part of Shell Rent, 10 average foot-candles in all non-office areas within the Premises with a uniformity ratio of 4:1. Emergency egress lighting levels shall be provided as part of Shell Rent in accordance with the local applicable building codes (but not less than 1 foot-candle) by either an onsite emergency generator or fixture mounted battery packs.

B. Occupancy Sensors: The Lessor shall provide ceiling mount occupancy sensors (over aisles and open areas), or scheduling controls through a building automation system (BAS) throughout the storage portion of the Space in order to reduce the hours that the lights are on when a particular area is unoccupied. No more than 1,000 square feet shall be controlled by any one sensor. Occupancy sensors in enclosed rooms shall continue to operate after any BAS has shut down the building at the end of the workday.

7.13 EMERGENCY POWER TO CRITICAL SYSTEMS (WAREHOUSE) (MAY 2014)

Emergency power backup is required for all alarm systems, CCTV monitoring devices, fire alarm systems, entry control devices, lighting, etc., and special equipment, as identified elsewhere within this Lease. Costs for emergency power to critical systems that are security requirements should be allocated to the BSAC cost component.

7.14 MECHANICAL AREAS AND BUILDING ROOFS (WAREHOUSE) (MAY 2014)

Roof access shall meet the applicable egress requirements in the National Fire Protection Association (NFPA) 101, Life Safety Code or IBC (current as of the Award Date of this Lease).

7.15 LIGHTING: INTERIOR AND PARKING—TI (WAREHOUSE) (MAY 2014)**WAREHOUSE AREAS:**

A. **FIXTURES:** Once the design intent drawings are approved, the Lessor shall design and provide interior lighting to comply with requirements under the paragraph, "Lighting: Interior and Parking—Shell." Any additional lighting fixtures and/or components required beyond what would have been provided for an open warehouse 10 foot candle plan plus shipping & receiving areas of 30 foot candles (Shell) are part of the TIs.

B. Lighting for the warehouse, shipping, and receiving portions of the Space is detailed in Section 3 and is part of Shell.

C. **BUILDING PERIMETER:** There may be additional requirements for lighting in exterior parking areas, vehicle driveways, pedestrian walkways, and Building perimeter in the Security Requirements attached to this Lease. Such additional lighting required to meet Security Requirements shall be BSAC.

7.16 LOADING DOCKS—TI (WAREHOUSE) (MAY 2014)

The Government will require hydraulic dock levelers or loading ramps for any warehouse dock (other than drive thrus) not already having dock high loading docks.

7.17 PORTABLE FIRE EXTINGUISHERS (WAREHOUSE) (MAY 2014)

Lessor shall provide, inspect, and maintain portable fire extinguishers in accordance with NFPA No. 10.

7.18 TRASH DUMPSTER SERVICE – LESSOR PROVIDED (WAREHOUSE) (OCT 2016)

Lessor must provide trash dumpster service for the Space on a basis. Lessor must provide an outdoor area for dumpsters, each measuring feet high X feet wide X feet long, conveniently located to the Government's loading area for the trash dumpsters at no additional charge to the Government.

7.19 HEATING AND VENTILATION – SHELL (WAREHOUSE) (OCT 2021)

Warehouse areas: Temperature control for all warehouse areas shall be provided by ceiling mounted heating equipment capable of maintaining a minimum temperature of 65 degrees Fahrenheit (with all doors closed) throughout the warehouse area during the heating season regardless of the outside temperature. Unit heaters shall be controlled by individual thermostats mounted in the area of the unit heaters or controlled from a central master time clock of the 7-day type with a separate manual override switch (12 hours) or other automatic means to permit setback of temperature at night and on weekends. Thermostats shall be secured from manual operation by key or locked cage. A key shall be provided to the Government's designated representative. Central air rotation units will be acceptable if loading dock areas are equipped with unit heaters for direct heating over doors. In the warehouse area, unit heaters shall be mounted tight to the ceiling for maximum headroom. Lessor shall provide ventilation/air circulation in accordance with ANSI/ASHRAE 62.1, Ventilation for Acceptable Indoor Air Quality. Lessor shall follow the ASHRAE version that corresponds with how the HVAC system was designed to perform. At a minimum, Lessor must meet ASHRAE Standard 62.2004.



Exhibit A - Floor Plan

(b) (5), (b) (7)(F)

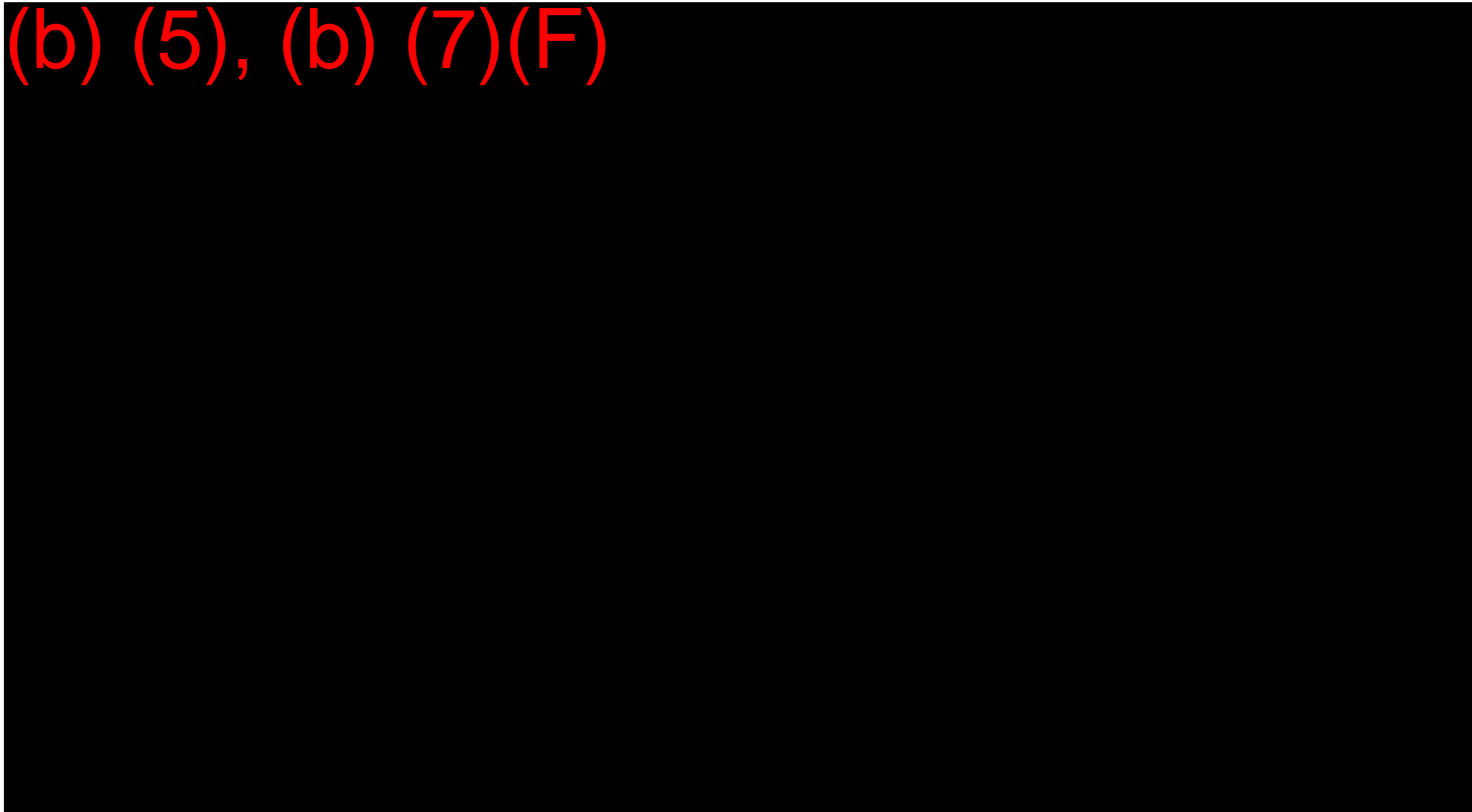


Exhibit A - Floor Plan

(b) (5), (b) (7)(F)

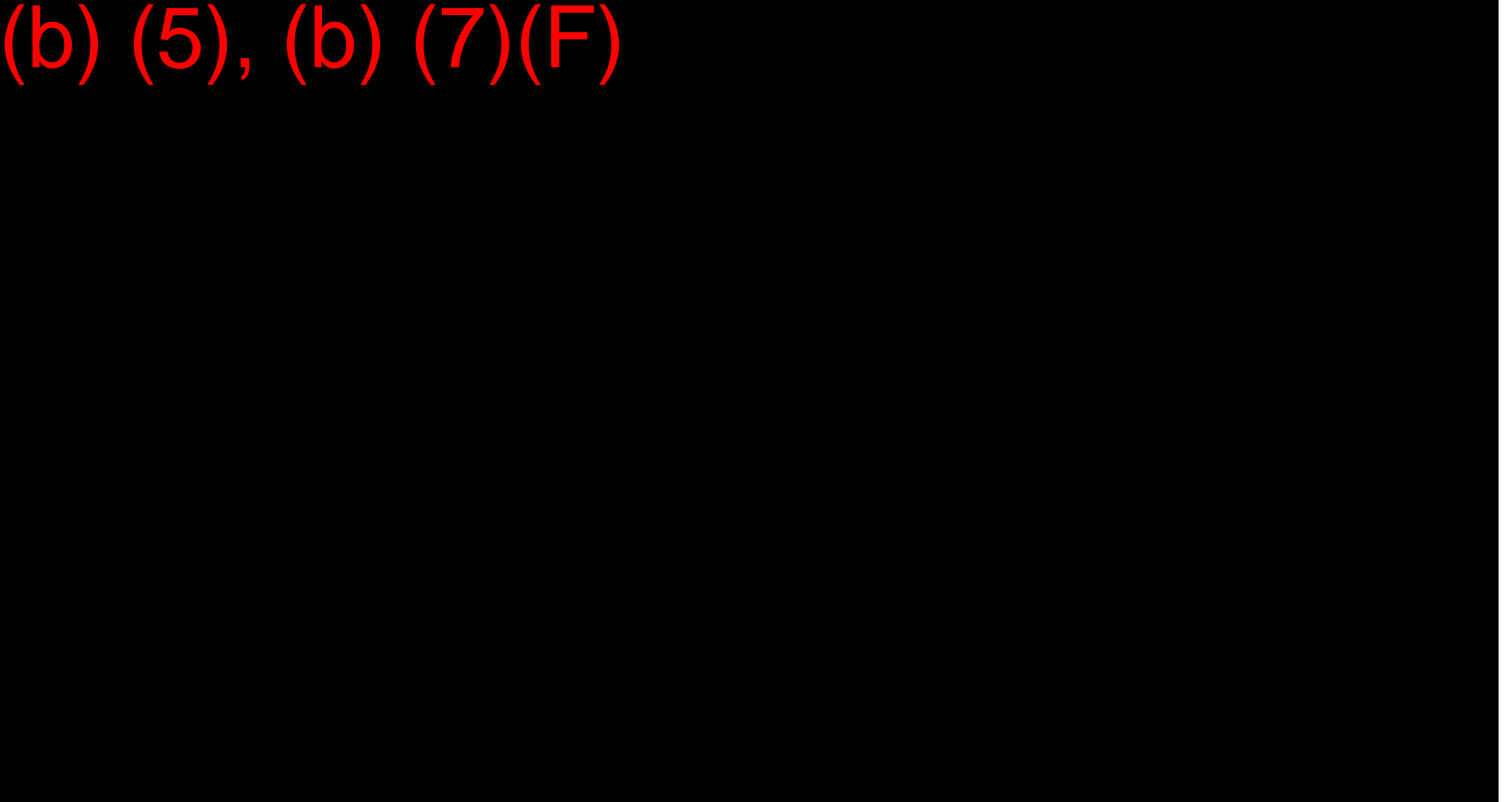


Exhibit B – Parking Plan

(b) (5), (b) (7)(F)



A.1. GENERAL REQUIREMENTS

A.1.1. Purpose of This Section

The purpose of this section, referred to as the "A/E Guide," is to inform Architectural/Engineering (A/E) firms of the DOS requirements that exceed P-100, and of the administrative and technical requirements for providing professional services to DOS. The A/E guide is part of the A/E firm's contract. It is essential that the A/E Guide is thoroughly reviewed prior to submission of an A/E Fee proposal and that it be referred to throughout the execution of the A/E contract.

Questions concerning the requirements of the guide should be addressed to the DOS, A Bureau/ Operations/ Office of Real Property Management (A/OPR/RPM).

Note: Any deviation from these standards must be submitted for approval to the Design and Construction Chief, A/OPR/RPM and shall include a compelling justification for any changes. Proposed changes will be reviewed by the appropriate disciplines prior to approval.

A.1.2. Changes to This Document

Recommended changes to this document shall be provided to the RPM Office Director (Phone: 202-647-0618; Fax: 202-647-4769). Proposed changes will be submitted to the RPM Sponsored Standards Review Committee for approval. This committee shall consist of representatives of RPM, FMS, DESD, SP, IRM, and DS.

A.1.3. Federally Owned Properties

The A/E Guide is DOS specific and shall be used for projects in all federally owned buildings, including new buildings, alterations, additions, and work in historic structures. The A/E Guide shall be used in conjunction with the DOS HST Building - Specific Building Standards and specific project requirements. Project managers will use and tailor the guidelines to each project, ensuring the A/E Guide does not conflict with building codes or lease agreements.

A.1.4. Non-federally Owned Properties

In the case of leases, assignments, and projects with GSA in non-federally owned properties, the A/E Guide shall be used only as a guideline. In case of a conflict between the lease language and terms outlined in the SF2, SFO, riders and amendments thereto and the A/E Guide, the terms specified in the lease shall govern. RPM Project managers and realty specialists, together with the A/E firm, may amend or modify the A/E Guide to comply with deviations and variances in the lease language and terms or national, state and local building codes. Any additional costs associated with meeting these design standards shall be borne by the tenant(s).

A.1.5. Total Building Commissioning

The Domestic Design Guidelines requirements for commissioning are based primarily on the Commissioning Process recommended in the American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) Guideline 0 - 2005. Project teams shall use the Building Commissioning Process outlined in ASHRAE Guideline 0. Guideline 0 has been adopted by both ASHRAE and NIBS and does not focus upon specific systems or assemblies, but presents a standard process that can be followed to commission any building system that may be critical to the function of a project. All applicable inspections and commissioning shall be done by a third party. The commissioning goals are the following:

- Define and document requirements clearly at the outset of each phase of the project and update through the construction process.
- Verify and document compliance at each completion level or project phase.
- Establish and document commissioning process tasks for subsequent phase delivery team members.

SECTION A GENERAL STANDARDS

- Deliver buildings and construction projects that meet the owner's needs, at the time of completion.
- Verify that operation and maintenance personnel and occupants are properly trained.
- Maintain facility performance throughout its life cycle.

A.1.6. Environmental Health and Safety Provisions

Environmental health and safety provisions shall be integrated through all phases of construction and renovation from initial planning through commissioning. These include:

- Regulatory requirements (national, state, and local).
- Federal executive orders.
- Environmental management to include Green Purchasing, recycling and energy conservation.
- Appropriate consensus standards and guidelines (ASHRAE, ICC, ASME, NFPA, etc.).
- Sustainable design principles (optimizing site potential, energy and water management, minimizing waste, using environmentally preferable products and materials, and enhancing indoor environmental quality).

A.1.6.1. Waste Minimization: Solid waste generated by construction and renovation activities shall be minimized to the greatest extent possible and a minimum of 50% construction and demolition waste shall be diverted on all projects. Waste minimization shall follow a hierarchy of reduction, reuse, recycling, and disposal. A waste management plan shall be submitted for each project. The plan should identify types and quantities of waste anticipated, and include a proposed plan for each waste stream (**See Appendix A-I: Renovation Waste Tracking Form** for an example). Consideration should be given to waste from demolition activities as well as minimization of new construction waste. Upon completion of project, provide DOS with a summary report documenting project waste prevention activities to include:

- List of waste materials, with weight/volume of each
- List of materials re-used, with weight/volume of each
- List of materials re-cycled, with weight/volume of each.
- Cost savings generated due to efficient waste management.

A.1.6.2. Green Purchasing: Green Purchasing shall be utilized throughout the project on all materials and equipment. Green Purchasing is defined to include the acquisition of recycled content products, environmentally preferable products and services, bio-based products, energy- and water-efficient products, alternate fuel vehicles, products using renewable energy, and alternatives to hazardous or toxic chemicals. Whenever possible, purchase previously used or re-cycled content materials. Tools/references are available at: <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>

A.1.6.3. Planning Phase: For new construction, DOS strongly prefers selection of "Brownfield sites over "Greenfield. "Brownfield" sites are defined as land previously used for industrial purposes or some commercial uses, whereas "Greenfield" land is undeveloped land in a city or rural area used for agriculture, landscape design, or left to evolve naturally. Previous owners shall be responsible for ensuring – via thorough documentation subject to DOS review – that no environmental contamination of the site exists prior to DOS obtaining the property. Reference: <http://www.epa.gov/brownfields/>. For all new construction/major renovations, Environmental Assessments and subsequent Environmental Impact Statements for the proposed projects shall be performed and developed in accordance with the National Environmental Policy Act (NEPA) – <http://ceq.doe.gov/> and the Department of State Regulation for Implementation of the National Environmental Policy Act – <http://cfr.law.cornell.edu/cfr/cfr.php?title=22&type=part&value=161>.

A.1.6.4. Related Considerations:

- a. Threatened and Endangered Species Act – <http://www.fws.gov/endangered/laws-policies/index.html>
- b. National Historic Preservation Act – <http://www.achp.gov/nhpa.html>
Note: both items may be addressed as part of NEPA analysis.
- c. Consideration of locations serviced by public transportation.

A.1.6.5. Recycling Containers: Office occupants should contact FMS for recycling bin specifications.

- a. New recycling containers should consist of a minimum of 10% post-consumer recycled material. They shall have multiple openings to allow recyclables to be separated into glass and plastic, paper, cans, and trash. Recycling container bins shall be color coded as follows:
 - 1. Glass and Plastic – Forest Green
 - 2. Paper – Blue
 - 3. Cans – Yellow
 - 4. Trash – Red
- b. Recycling containers should be the Fibrex Group Mobius DS 4 Compartment, Fibrex Group Kaleidoscope Standard Square style or equivalent.

A.1.7. Indoor Air Quality (IAQ) Guidelines

A.1.7.1. Establish a Construction Indoor Air Quality Management Plan for use during construction in accordance with SMACNA "IAQ Guidelines for Occupied Buildings under Construction," current edition.

A.1.7.2. Ensure IAQ management prior to occupancy meets current LEED project requirements.

A.1.8. Prototypical Systems Furniture Requirements

A.1.8.1. All systems furniture shall be manufactured from recycled content/post-consumer content materials; ref. EPA CPG Guidelines at: <http://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>

A.1.8.2. When available, incorporate provisions for manufacturer "take-back" programs, in which manufacturers reclaim scrap material and/or packaging associated with their products.

A.1.8.3. All furnishings shall comply with low-emitting Materials Requirements for Systems Furniture and Seating, in accordance with current LEED requirements.

A.1.8.4. Ergonomic considerations shall be taken into account for all workstation design.

A.1.8.5. Maximize adjustability of all workstation components (work surface, chair, keyboard tray, computer screen, etc.). For more information see **Appendix A of the Domestic Ergonomics Program** available on Projnet/RPM Portal/Collection Area for Standards and Guidelines/DOS Standards and Guidelines

A.1.9. Construction Document Submission Requirements

A.1.9.1. A code compliance statement signed by a registered architect shall be provided on the

SECTION A GENERAL STANDARDS

cover drawing.

A.1.9.2. All drawings shall be in Imperial (English) dimensions.

A.1.9.3. The Security Classification Guide dated April 8, 2014 establishes uniform procedures for the classification and/or control of national security (classified) information relating to the architecture, engineering, and construction of domestic DOS projects. The DS guidelines for security classification are provided as a separate document.

A.1.9.4. All CAD files must adhere to GSA-PBS CAD Standards dated March 05, 2012 or most current. The PBS CAD Standards and a list of PBS CAD managers are available at <http://www.gsa.gov/cad>

A.1.9.5. RPM has developed a Design Intent Document template for use. The template is available on ProjNet/RPM Portal/Collection Area for Standards and Guidelines.

A.1.10. Installation Requirements

All products must be installed and tested in accordance with manufacturers' recommended installation procedures.

A.1.11.

This section is no longer applicable and has been removed

A.1.12. Limitations on Work Hours

Noise-producing activities (core drilling, floor and ceiling shooting, grinding, etc.) and HAZMAT removal shall be scheduled during non-work hours (1800-0600 weekdays, all day weekends), unless otherwise specified or directed by DOS. At all other times, the construction contractor shall make reasonable efforts to limit noise.

A.2. EXISTING CONDITIONS

A.2.1 Asbestos Abatement

A.2.1.1. Required Removal of Suspected Asbestos Containing Floor Tile: Floor tile and mastic will sometimes contain asbestos. In order to avoid change orders and delays, DOS policy is to identify and abate all ACM floor tiles as part of design/build and/or design/bid/build projects. Areas of removal must be clearly indicated on design drawings and surveys conducted and provided for said areas.

A.2.1.2. Required Survey of Suspect ACM: Surveys are required during project design to determine the presence of ACM. If sampling results for the suspect materials in the project area are not readily identifiable in the survey report, then suspect ACM must be sampled and analyzed for asbestos content, or presumed to be asbestos-containing. This requirement is not dependent on the age of the material. If a hazardous material survey is not already available for the affected area, one must be prepared prior to commencement of work, regardless of the building's age or date of construction. EPA NESHAP requires that an asbestos survey be performed prior to any renovation or demolition. All DOS spaces must have a hazardous materials survey performed which should be provided with the design submission. All impacted building materials that contain asbestos must be removed (not just floor tile/mastic) during renovation/demolition. All documents and specifications should specify "New building materials must not contain asbestos."

A.2.1.3. DOS Domestic Asbestos Management Program: Refer to Projnet/RPM Portal/Collection Area for Standards and Guidelines/DOS Standards and Guidelines for access to all reference documents for review before project design. See also **Appendix B-I for Asbestos Fact Sheet for**

(b) (6)

Carpet Removal and Installation. The Asbestos Management Program has been developed to manage ACM that may be present in domestic facilities owned, operated or leased by DOS. The purpose of the program is to maintain ACM in good condition and minimize asbestos fiber release. This program has been prepared to comply with applicable health, safety and environmental regulations including the Occupational Safety and Health Administration (OSHA) regulations 1910.1001, Asbestos General Industry Standard and 1926.1101, Asbestos Construction Standard. This program has been designed to promote the efficient and effective management of normal maintenance and renovation activities that may involve the disturbance of ACM.

A.2.2. Asbestos Containing Materials (ACM) in Buildings

Asbestos has not been banned from all building products. ACM can still be purchased and installed in buildings. All DOS projects should specify "New building materials must not contain asbestos." The following materials are suspect materials and may contain ACM. These materials have been found in some DOS Buildings. This list is not all-inclusive.

- Cement sheet ("transite" in metal pan ceiling tiles)
- Cement pipes/shingles (transite) Pipe insulation/mud
- Roofing felt/flashings/coatings
- Vinyl floor tile (various colors, 9 x 9 and 12 x 12)
- Linoleum Flooring
- Flooring mastic (various colors)
- Wall systems (wall board/mud)
- Plaster ceilings
- Ceiling/Wall Tiles
- Ceiling/Wall Tile mastic
- Duct insulation
- Duct mastic
- Sprayed-on/troweled on surfacing material (i.e. popcorn ceilings, etc.)
- Vapor barrier
- Heat shields

A.3. CONCRETE

A.3.1. Recycled Concrete

Designs shall include the requirement for use of recycled content concrete and associated materials, whenever applicable. See: <http://www3.epa.gov/epawaste/conserve/tools/cpg/products/construction.htm#cement> for additional information.

A.3.2. Trenching, Core Boring, Saw Cutting, and Hammer Drilling of Concrete Slab:

The requirements for the various methods used in penetrating the concrete slab are as follows:

A.3.2.1. No saw cutting, trenching, core boring, or other penetration of the concrete slabs is permitted without first checking for and identifying the presence of conduit, underfloor ducts, or reinforcing steel. These activities also require compliance with OSHA Silica Standards. If the underfloor duct is in use, any cables in the duct must be removed prior to the work.

A.3.2.2. Saw cutting slabs prior to chipping is permitted providing the following:
The depth of 4" is not exceeded and metal is not detected using (A/OPR/RPM provided) ZIRCON METALLISCANNER 6.0 magnetic detector.

A.3.2.3. Where the concrete slab is to be penetrated to a depth of more than 4", the contractor shall first contact a non-destructive testing (NDT) service provider designated by A/OPR/RPM at least 24 hours in advance. The NDT service provider is required to:

SECTION A GENERAL STANDARDS

- a. Survey the work area;
- b. Confirm no conduit or underfloor duct is present and/or, if detected, physically mark these objects on the slab surface;
- c. Provide documentation of the testing survey images and interpretation of findings by the technician.

A.3.2.4. Permanent documentation of the NDT images and interpretation by the technician will be saved in the project file by the FMS/RPM project leader.

A.3.2.5. Core boring is permitted only if:

- a. The size of the borehole is 8" in diameter or less; and
- b. Boreholes are no closer than 24" away from column supports.

A.3.2.6. The requirements for using radiography (X-ray) are as follows:

- a. Notices to areas affected by radiography must be sent to EX offices of affected offices a minimum of 2 weeks in advance.
- b. Areas to be tested must be clear of all but radiographic testing personnel as follows:

R1932 Isotopes (slabs under 12" thick)	CO60 Isotopes (slabs 12" and over)
Top side of slab: 40-80' Horizontally	Top side of slab: 75-80' Horizontally
Bottom side of slab: 100-125' Horizontally	Bottom side of slab: 175-200' Horizontally

A.3.2.7. Preferred and acceptable NDT methods for surveying areas are shown on the following table:

	SURVEY AREA							
	Slab Thickness < than 6"		Slab Thickness 6" to 10"		Slab Thickness 10" to 18"		Slab Thickness > than 18"	
	Saw-cut ¹	Bore-hole ²	Saw-cut ¹	Bore-hole ²	Saw-cut ¹	Bore-hole ²	Saw-cut ¹	Bore-hole ²
PREFERRED	Magnetic	GPR	Magnetic	GPR	Magnetic	GPR	Magnetic	X-ray
ACCEPTABLE	GPR, X-ray	Magnetic, X-ray	GPR, X-ray	X-ray	GPR, X-ray	X-ray	GPR, X-ray	None

Notes:

1. Penetration of the slab by no more than a depth of 4 inches;
2. Complete penetration of the slab;
3. GPR – ground penetrating radar

A.3.2.8. For areas where it is impractical to survey using radiography (i.e., near any 24/7 mission critical operations), FMS and RPM staff will collectively ensure that a consensus is reached on the best approach.

A.3.2.9. The practice of chipping and/or hammering-drilling is generally not permitted because improper use of this practice has directly contributed to several safety breaches. Any request for waiver permitting the use of this practice must be approved by the RPM/DC branch chief.

A.3.2.10. Current DOS sources for NDT testing are: ECS Mid-Atlantic, LLC (Chantilly) - contact number is 703-471-8400; and WJE Engineering (Fairfax) - contact number is 703-641-4601.

A.4. MASONRY

A.4.1. Recycled Content

Recycled non-hazardous materials shall be used to the extent practical and allowed by state/local building code. Local sources shall be used to the extent practical.

A.4.2. Applicable Codes

Masonry applications shall follow the following guides for the design of masonry structures:

- ACI 530-08/ASCE and 5-08/TMS 402-08. Materials, design and construction of masonry units shall be in accordance with applicable ASTM codes for unit masonry.
- Grout shall be in accordance with ASTM C476. Stone assemblies shall comply with ASTM D1364.
- Inspection and testing of unit masonry, grout, mortar reinforcing, and accessories shall comply with ACI 530.1-08 and state/local building codes, as applicable.

A.5. METALS

A.5.1. Recycled Content

Recycled non-hazardous materials shall be used to the extent practical and allowed by state/local building code. Local sources shall be used to the extent practical.

A.5.2. Fabrications

All steel and other metal fabrications must meet the requirements of the AISC Code of Standard Practice. All steel fabricators must be certified Steel Building Structure Fabricators, in accordance with AISC requirements, AISC, Certification Standard for Steel Building Structures.

A.6. WOODS, PLASTICS, AND COMPOSITES

A.6.1. Recycled Content

Designs shall include use of recycled content (engineered wood products), salvaged/recovered lumber, or sustainably-harvested wood certified under Forest Stewardship Council Guidelines.

A.6.2. Low Emitting Materials

Designs shall include use of low-emitting materials (formaldehyde, VOCs). Manufacturer's documentation shall be provided certifying the emission claim.

A.7. THERMAL AND MOISTURE PROTECTION – Not applicable

SECTION A GENERAL STANDARDS

A.8. OPENINGS

A.8.1. Windows

A.8.1.1. **Window Film:** Glass fragment retention film is currently installed on all DOS existing windows and is not required as a normal part of office renovations. The contractor is expected to provide reasonable care to protect the film from damage during renovations.

A.8.2. Doors

Suite entry doors and other common corridor access doors shall match existing as close as possible.

A.9. FINISHES

All finishes (flooring, carpeting, wallboard, ceiling tiles, paints, sealants, etc.) shall include post-consumer/recycled bio-based content materials to the greatest extent possible. All finishes must be no-emitting or low-emitting materials with respect to VOCs and aldehydes, and documentation (GreenSeal, Manufacturer's MSDS) must be provided certifying the emission claim. Preference shall be given to formaldehyde free building materials. If there is no formaldehyde free option, then the material shall contain no added urea-formaldehyde or shall be proven to emit formaldehyde levels below 50 ppb. All carpets used in the building interior must meet the testing and product requirements of the Carpet and Rug Institute's Green Label Plus Program.

A.9.1. Walls

A.9.1.1. **Wood Trim:** Limit the use of wood trim, except in conference rooms.

A.9.2. Ceilings

A.9.2.1. **Design of Ceiling Grid to Accommodate Demountable Partitions:** In areas where demountable partitions are used, the A/E shall provide a detail for mounting the upper wall track to the ceiling grid, showing a 1/4" spacer along with the twist-on fixture support (recommend Caddy Fastener 4TGS- 1/4" spacer or equivalent). This spacer shall allow the ceiling tile to lay flat in the grid system.

A.9.2.2. Ceiling tile and suspension grid shall be consistent throughout the building. A standard "square lay-in" ceiling tile shall be used; no "Tegular" type, where the ceiling panel extends below the grid such that the grid is less noticeable.

A.9.3. Acoustical Design

A.9.3.1. Research noise limitations specified by local zoning codes during construction, and determine requirements for the project's adherence to such codes.

A.9.3.2. Determine the impacts of proposed building systems on surrounding areas and ambient conditions. Minimize or reduce noise pollution generated by the building by assessing any noise producing elements and their relationship to neighboring properties.

A.9.3.3. Include consideration of how the noise level from external sources around the building will affect occupants.

A.9.3.4. Design space so that ambient noise levels do not exceed those quantified by Noise Criterion (NC) Curves, published in the ASHRAE Handbook of Fundamentals and ANSI Criteria for Evaluating Room Noise.

A.9.4. Flooring

A.9.4.1. All flooring shall be easily cleanable.

A.9.4.2. Carpet color shall not be light or solid and shall have a pattern such that stains, smudges, and dirt from day to day use is not readily apparent, as much as possible.

A.9.5 Countertops

Countertops in breakrooms, restrooms, lobbies, and wok areas shall be solid surface material. Plastic laminate countertops may be used in dry, light use bathrooms.

A.10. SPECIALITIES

A.10.1. Bicycle Program

A.10.1.1. All new bicycle racks should be equipped with provisions for individual bike locks.

A.10.1.2. Criteria for Installing Bicycle Racks:

- New metal rack designs should consist of a minimum of 10% post-consumer recycled metal.
- Rack finishes should be either galvanized or other durable, weather-resistant finish.
- Recommended rack suppliers and designs are Dero Campus model D rack, or equivalent; Dero Arc Rack, or equivalent; or Steady Rack Classic, or equivalent.
- During design it is recommended that the manufacturer's recommendations for spacing distances be followed. For example, Dero Guide Specifications for Dero racks are available at www.dero.com. Upon request, Dero will provide sample rack layouts for the available space. Contact Dero directly for more information.

A.10.1.3. Criteria for Existing Bicycle Racks:

- Existing racks should be reused where applicable. If necessary, existing racks should be relocated to maximize the number of bike parking spots.
- Existing racks no longer needed should be salvaged. Contact A/OPR/FMS to take possession of salvaged racks.
- All racks should be equipped with provisions for individual bike locks.

A.10.2. Signage and Bulletin Boards

Only official DOS bulletin boards procured and maintained by A/OPR/GSM shall be mounted in the building corridors, and no other boards, pictures, posters, etc. All corridor signage shall match existing.

A.10.3. State Seal

A.10.3.1. Window decals/etchings of the State Seal can be obtained from The Office of Real Property Management. Matching decals for Bureau information can be purchased by the individual bureaus from: 'johnson@serigraphicarts.com'

A.10.3.2. The following firms have capabilities for producing emblems of the Great State Seal:

DOS approved molds in 24", 30", and 60" sizes:
National Capital Flag Co., Inc.
100 South Quaker Lane
Alexandria, VA 22314
Tel: 703-751-2411; Fax: 703-751-4874

SECTION A GENERAL STANDARDS

DOS approved molds in 12" and 18" sizes:

A-1 Uniform Sales Co, Inc.
4010 Volta Ave, 2nd Flr
Brentwood, MD
301-277-9100.

A.10.4. Ground-Set Flagpoles

Official Federal, Department of State and State flags are required at the building entrance or main building of a campus. Flagpole requirements are described in the GSA P100 and GSA Flag Policy provided online at http://www.gsa.gov/graphics/pbs/GSA_Flag_Policy_122107_w013108.pdf

A.10.5. Building Cornerstones

The U.S. Department of State delegates the GSA P100 requirements for a cornerstone on buildings constructed with DOS funding.

A.10.6. Naming Interior Spaces

Plaques may be installed inside DOS-owned and delegated buildings to name interior spaces. The design and location of interior naming plaques in these buildings shall be approved by A/OPR. Plaques naming spaces in GSA- owned or leased buildings require approval by the GSA assistant regional administrator.

A.10.7 Monument Signs

Monument signs may be installed to identify the predominate entrances to US Department of State buildings and campuses. The signage shall be architecturally consistent with design of the building or campus they identify. The monument sign shall identify the US Department of State, provide the building or campus name, and the address of the facility. The design and location of the monument sign shall be approved by A/OPR.

A.11. EQUIPMENT

A.11.1. Cooking Appliances

Cooking appliances may be installed in areas specifically designed for the type of appliance. Refer to **APPENDIX A-IX** for Memorandum.

A.11.1.1. Microwaves, toaster ovens, coffee makers, warmers, crock pots, hot plates and other cooking devices are permitted with the prior approval of the FMS building manager. These devices often require special power and venting which must comply with national, state or local codes. They are only permitted in rooms intended for their use, such as a pantry area in a typical office suite. Small appliances shall be UL-Listed or FM-Approved.

A.11.1.2. Traditional ovens and stove tops may be installed in "kitchens." The kitchen must be protected in accordance with NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.

A.11.1.3. Traditional (electric heat resistance or gas) ovens and stove tops may not be installed in pantries or any other area that is not a protected kitchen. Ovens and stoves are not permitted for the following reasons:

- Traditional ovens and stove tops present an unacceptable fire hazard and higher risk than microwave ovens. Combustible material might come in contact with the hot surface of a stove top. Ovens and stoves can also accidentally be left ON and unattended for an extended period.
- Automatic fire sprinklers in office areas, including office pantries, are designed for light

hazard occupancy, as defined by NFPA 13, Standard for the Installation of Sprinkler Systems. Rooms containing ovens or stoves are classified as ordinary hazard occupancies and the sprinkler system is not designed for that level of hazard.

- An oven or stove purchased by a tenant bureau or agency is not part of the building's preventive maintenance (PM) program. Lack of adequate maintenance of such equipment items is an electrical hazard and common cause of fire.
- An oven or stove purchased by a tenant bureau or agency is not part of the building's custodial program. Lack of adequate cleaning leads to the buildup of grease and is a common cause of fire.
- Oven and stove top cooking generate odors which will impact air quality.
- Ovens and stoves are not energy efficient compared to microwave ovens.

A.11.1.4. Gas fired stoves or ovens are strictly prohibited within office suites, as is any open flame device.

A.11.2. Automated External Defibrillators

Automated External Defibrillator (AED) installation shall be part of any major design/redesign of any existing building where DOS employees are located, unless the renovation involves only a limited suite area or partial floor of a facility. The AED shall be of the same make and model consistent with AEDs used throughout DOS, per the DOS AED Program Manager, located in Facilities Management Services (FMS) Domestic Environmental and Safety Division (DESD). Units shall be fully operational and installed at locations consistent with current American Heart Association (AHA) guidelines.

A.11.2.1. Placement:

1. AEDs should be placed where they can be accessed within 3 minutes from an event in the building. (1.5 min. to get the device and 1.5 min. back)
2. AED should be in an alarmed, wall mounted, white metal AED box, which deters theft and allows maximum visibility.
3. AEDs should be located in heavy trafficked areas as well as areas with activities that are at higher risk for cardiac arrest.
4. Located in the AED box should be the following items: adult defibrillation pads pre-attached to unit. In locations where children are likely to be present (child care facilities, Passport or other public lobbies, etc) a set of pediatric pads should be included.
5. AED cabinet handles should satisfy Architectural Barriers Act (ABA) guidelines for AEDs in public areas including maximum unobstructed forward reach of 1220 mm (48 inches) and maximum unobstructed side reach of 1370 mm (54 inches).
6. Wall projection of cabinets should be less than 100 mm (4 inches).
7. The federal regulations for ADA Standards for Accessible Design Section: Protruding Objects Section (28 CFR 36, 4.4.1) specify that "objects projecting from walls with their leading edges between 27" and 80" (685 mm and 2030 mm) above the finished floor (AFF) shall protrude no more than 4" (100mm) into walkways, halls, corridors, passageways, or aisles.

A.11.2.2. Location

1. Every DOS building domestically which contains 50 or greater employees should have at least one AED. Any location not meeting these criteria can be discussed with the DOS AED Program Manager.
2. If only one device is available, the recommended location is near a central elevator. Locations must be well marked.
3. Consider plans that place AEDs at consistent locations (e.g. by fire extinguisher cabinets or by the elevator or in a stairwell on even numbered floors).
4. A secure location that prevents or minimizes the potential for tampering, theft or misuse, and precludes access by unauthorized users.

SECTION A GENERAL STANDARDS

5. A nearby telephone that can be used to call backup, security, EMS or 911 to be sure that additional help is dispatched.
6. Consider placing AEDs in or near:
 - Exercise rooms, gyms, cafeterias, breakrooms, and child care facilities. Outside or near electrical rooms or other areas where there is a high risk of electric shock.
 - Near elevators/lobbies or stairwells with a sign identifying the AED location.
 - DS office for use in the facility and in motorcades.

A.11.2.3. Cabinet Basis of Design

1. AED wall cabinets and free standing cabinets (if required), shall be Physio Control as manufactured by JL industries, with appropriate identifying signage; or equal.

A.11.2.4. Alarm Operation – Commander Alarm (Standard Alarm)/14A, by JL Industries; or equal.

1. Sounds an 85dB warning horn when door is opened.
2. Alarm is deactivated when the door closes or the key switch is turned to the off position.
3. Keyed on/off switch.
4. Self-contained 9-Volt alkaline power source is provided.

A.12. FURNISHINGS

A.12.1. Space Planning and Furniture Requirements

For space planning prototypical work stations types, and related furniture requirements, refer to **Appendix B-XVII, Interior Design Standards**. For environmental requirements, see requirements for systems furniture in General Requirements, Section A.1.8.

A.12.1.1. Space planning and furniture shall comply with the appendix as closely as possible. The target utilization rate (UR) is 181 sqft/person for all buildings. These Interior Design Standards are prototypical, assigning amount of space and office or workstation type based on occupant grade and function. Private office assignment is based on function rather than grade. A table at the end of the appendix shows a comparison for equivalent positions among five groupings: Director or Professional Staff Level, Bureau Level, Diplomatic Security, Passport Office, and Overseas Building Operation. Variations to space utilization shall be within 5% of the areas shown in the Interior Design Standards. Exceptions may be submitted for approval by the DOS/RPM project manager in the event:

- The functional requirements of a staff position require more or less space for a specifically identified task, or item of furniture or equipment.
- The building floor plate requires adjustment of the target utilization rate and the adjustment in square footage does not adversely affect the functional requirement of the staff workspaces.
- The adjustment of the space utilization requirement lends itself to implementation of a universal design module, and the adjustment does not adversely affect the functional requirements of the staff workspaces.

A.12.1.2. Systems Furniture shall NEVER impede access to HVAC equipment, or electrical equipment. In all cases, the locations of sensors and thermostats need to be coordinated with the final furniture plan by the RPM PM and Interior Designer, which is after the final mechanical construction documents are issued to the contractor. This coordination needs to happen after the partition locations are chalked on the floor to confirm furniture placement and before the contractor begins installing the wiring in the space.

(b) (6)

A.12.2. Program of Requirements

The Program of Requirements (POR) accompanies the GSA SFO and describes the office's specific needs and provides the basis for the development of tenant space layouts. The POR tailors the generic space described in the SFO to make the space more suited to the office's specific needs. Topics typically addressed in the POR include:

- Enumeration of the amount and type of space required to house the office: offices, workstations, and support spaces.
- Listing of required special spaces: conference/training space, food service, fitness center, or auditorium.
- Description of building systems as they relate to the interior fit-out: lighting, power and telecommunications requirements, heating, ventilation and air conditioning, and acoustics.
- Special space specific requirements.
- Facility telecommunications and security requirements.

Appendix B-XVIII contains a sample POR A/E questionnaire and worksheets, which are intended as a guide to assist the A/E in developing the POR. Once the number of persons to be accommodated in a space, their job functions, and their organizational hierarchy is determined, the next step is to establish how much space will be required to house them. The goal is to create offices and workstations that provide a pleasant and efficient working environment for their occupants, but without undue waste of space.

A.13. SPECIAL CONSTRUCTION

A.13.1. Lactation Rooms

A.13.1.1. Each DOS-occupied building and each campus shall have one permanently designated lactation room as required by 3 FAM 3860. The implementation of federal policy for nursing mothers was delegated by the President to OPM. For additional information see the OPM publication "Guide for Establishing a Federal Nursing Mother's Program".

A.13.1.2. Minimum requirements are a seating area and table in a room between 80 to 110 square feet with an easily accessible electrical outlet. The room shall be lockable from the inside and the lock shall indicate whether the room is occupied or vacant to the outside. Building standard signage shall designate the Lactation Room.

A.13.1.3. The DOS standard layout, including fixtures and furnishings for the Lactation Room, is found in **Appendix A-VIII**.

A.14. CONVEYING EQUIPMENT

A.14.1. Applicable Codes

Elevators and escalators shall comply with the latest edition of ASME 17.1-2010, Safety Code for Elevators and Escalators and CSA B44-10, Safety Code for Elevators.

A.15. RESERVED – Section under Development by CSI

A.16. RESERVED – Section under Development by CSI

A.17. RESERVED – Section under Development by CSI

A.18. RESERVED – Section under Development by CSI

SECTION A GENERAL STANDARDS

A.19. RESERVED – Section under Development by CSI

A.20. RESERVED – For Future Expansion by CSI

A.21. FIRE PROTECTION AND LIFE SAFETY

A.21.1. General Requirements

A.21.1.1. Coordination with GSA "Safety, Environment, and Fire Protection Branch" (WPYG): Scope of Work for fire protection and life safety shall be e-mailed to Joseph Dafin (joseph.dafin@gsa.gov) for GSA-WPYG review prior to award. All submissions (including space plans) shall be provided to GSA for their review (Attn. Joseph Dafin, GSA Fire Protection Engineering Section (202-708-5239). A copy of drawings and specifications shall be provided to the Domestic Environmental and Safety Division, A/OPR/FMS/DESD, for review and approval. DESD and GSA-WPYG will coordinate responses.

A.21.1.2. In-House Designed Projects: Projects involving the installation of a new fire alarm and/or sprinkler system will be contracted to an A/E firm for design. For smaller minor renovation projects for which RPM staff prepares drawings, GSA's Fire Protection Branch, in coordination with DESD staff, will provide adequate fire alarm and/or sprinkler system information to meet the applicable codes.

A.21.1.3. Tenant Renovations: Tenant renovations shall be in accordance with GSA P100, and comply with nationally recognized building codes and standards. Renovations shall comply with local codes and national codes, whichever is more stringent.

A.21.2. Architectural Requirements

A.21.2.1. Fire-stopping: Include the following note on project drawings and/or in general specifications for all renovation projects:

Contractor shall not breach or penetrate any fire resistance rated barrier unless the contractor is prepared to fire-stop the opening. Any new breach or penetration in an existing fire rated barrier shall be fire-stopped within 24 hours of the creation of the breach or penetration.

Include the following note on architectural plans for all renovation projects:

All penetrations, joints, openings, etc., existing or new, in fire resistance rated construction within the project area shall be fire-stopped with a UL listed or FM approved fire-stop assembly. The rating of the assembly shall match or exceed the rating of the barrier being fire-stopped. Fire resistance rated construction includes, but is not limited to, stair and shaft walls, and concrete ceiling and floor slabs.

A.21.2.2. Ceiling Close-In Inspection: Include the following note on architectural plans for all renovation projects:

Contractor shall notify A/OPR/FMS and A/OPR/FMS/DESD a minimum of two working days prior to ceiling close-in that the area above the finished ceiling is substantially complete and ready for inspection. If FMS or DESD finds deficiencies with the materials or workmanship in the above-ceiling space, the contractor shall correct deficiencies prior to closing in the ceiling. After corrections are made, contractor shall notify FMS and/or DESD that the space is ready for re-inspection.

A.21.2.3. **Construction Barriers:** Where provided, construction barriers shall be of non-combustible construction. Methods of safeguarding construction areas shall be in conformance with NFPA 241, *Standard for Safeguarding Construction, Alteration, and Demolition Operations*.

A.21.2.4. **Horizontal Sliding Doors:** Horizontal sliding doors may be used in office spaces as a primary means of egress where all of the following conditions are met:

- a. The space served by the horizontal sliding door has an occupant load of nine or fewer persons,
- b. The office suite containing the horizontal sliding door is fully sprinkler protected,
- c. The layout/configuration of the horizontal sliding door does not lend itself to being easily blocked (i.e., the slide path for a door shall be on the corridor side of an office wall), and
- d. It is impractical (due to space considerations or layout of the office suite) to use a side hinged door in the same location.

A.21.2.5. **Egress Analysis:** An egress analysis shall be performed for any renovation that includes seating for more than 49 people, involves an area of more than 4,500 sq. ft., or any renovation over 2,500 sq. ft. that includes a conference room. Analysis shall show estimated occupant load, egress paths, common path of travel, required means of egress, and required door swing. Analysis shall be based on NFPA 101, *Life Safety Code*. Any deficiency that cannot be corrected due to existing building conditions shall be clearly indicated on the egress analysis.

A.21.3. Architectural Requirements

A.21.3.1. Install fire sprinklers in renovated or new spaces.

A.21.3.2. **Sprinkler System Design Drawings:** Where sprinkler protection is to be provided or modified, the design shall be on a dedicated sprinkler system design drawing. Indicate, as a minimum, any required demolition, the area to be protected, location of existing risers and/or feed mains, point of connection to existing, proposed routing of new sprinkler feed mains and cross mains, design criteria (area, density, & hose stream), and known water supply data. Identify the location of the valve which controls the water supply to the sprinklers and the water flow alarm associated with the sprinklers in the area.

Additionally, rooms that contain valves or controls for the sprinkler system must be identified as required by the IFC. Each sprinkler system or sub-system that is equipped with a floor control assembly must include a check valve. All drains other than auxiliary drains shall terminate on the outside of the building with a turn-down elbow and a splash block. Where drains are combined for any reason, the discharge piping shall be increased by one size as indicated in NFPA 13.

A.21.3.3. **Drawing Notes:** As a minimum, include the following notes on all sprinkler system design drawings and/or modify the specifications to indicate such:

- a. Provide wet pipe sprinkler protection throughout project area as indicated. Design and install system in accordance with NFPA 13.
- b. Existing sprinkler and standpipe protection outside the project area shall be maintained as operational except when connecting to the existing system. Provide a fire watch at all times the existing sprinkler/standpipe system is out of service.
- c. Corridor sprinkler mains shall be 4" and a capped tee shall be provided at the end of the feed main and at all corridor intersections to provide for future expansion of the sprinkler system.
- d. Unless otherwise noted, sprinkler coverage shall be hydraulically designed for light hazard



SECTION A GENERAL STANDARDS

- occupancy per the requirements of NFPA 13 and design specifications. If a conflict occurs between the specifications and NFPA 13, the more stringent requirement shall apply.
- e. Sprinklers shall be semi-recessed, chromium plated, installed in the center of the ceiling tile in areas with a suspended ceiling. Concealed type sprinklers may be used where a solid ceiling (e.g., plaster or gypsum wall board) is installed. Brass upright sprinklers shall be used in unfinished areas. Sprinklers utilizing an O-ring to seal the discharge orifice shall not be used.
 - f. Sprinklers shall be ordinary temperature quick response unless otherwise indicated, or unless a higher temperature sprinkler is required per NFPA 13.
 - g. Sprinkler pipe shall be U.L. listed black steel, minimum schedule 10 with rolled grooved fittings for pipe 3 inch and larger, and minimum schedule 40 with rolled grooved or threaded fittings for pipe 2 ½ inch and smaller.
 - h. For areas with pendent sprinklers in finished ceilings, pipe hangers with restraining clips shall be provided within 1 ft. of the end sprinkler of all branch lines and on arm-overs longer than 12 inches. Extending the all-thread rod to the pipe is not an acceptable means of preventing upward thrust of the sprinkler.
 - i. No sprinkler work shall be performed without an approved sprinkler system submittal (shop drawings, cut sheets, and calculations) from GSA – WPYG and DOS Domestic Environmental and Safety Division (DESD). Sprinkler system outage requests shall be submitted to GSA and DESD a minimum of three working days prior to the desired outage.
 - j. Conduct a hydrostatic pressure test on the new/modified sprinkler system in accordance with project specifications. The new/modified sprinkler system shall be isolated to the extent possible from the remainder of the system during the hydrostatic pressure test. A pre-test (following the same criteria as the final test) shall be conducted by the contractor prior to requesting a final hydrostatic pressure test. System shall pass the hydrostatic pressure test prior to final acceptance, and system shall be accepted by GSA-WPYG and/or DOS-DESD prior to connecting the new/modified system to the existing sprinkler/standpipe system.
 - k. Contractor shall notify the Contracting Officer's Representative (COR) at least 72 hours in advance of a desired shutdown of a sprinkler system. The COR will then coordinate the scheduled shutdown with DESD and the GSA Fire Alarm Shop. The contractor shall be responsible for draining the system, filling the system upon completion of work, and placing the system back in service.
 - l. Provide six spare sprinklers of each type used. Provide spare sprinkler cabinet and required wrenches and deliver the cabinet, sprinklers, and wrenches to A/OPR/FMS/DESD. Label the cabinet with inventory list per NFPA 13 and with the room or suite number being modified using white lettering on red background laminated plastic "micarta" strips. Lettering shall be minimum 1/2" tall. Permanently affix label to cabinet door.
 - m. Drawing(s) shall indicate configuration of major system components. They are diagrammatic in nature and are not intended to show exact locations. Pipe lengths and dimensions indicated on drawing are approximate. Coordinate final installation with field conditions and other construction trades.
 - n. Provide a washer and locknut at point where threaded rod is attached to concrete deck or structure.

A.21.3.4. Hydrostatic Testing: The following procedure shall be followed during government witnessed hydrostatic pressure testing intended as an acceptance test:

- a. Contractor shall have already conducted a pre-test to ensure the integrity of the system prior to requesting an acceptance test.
- b. After the system is pressurized, the pump to pressurize the system shall be removed from the building, and all hoses used for the test shall be disconnected from the system and the source, rolled up, and put away.
- c. Contractor shall clean up and dry any water spills caused as a result of the test set-up procedures.

- d. During the 2-hour test, the government witness need not be present for the entire two hours, but multiple and random checks of the system shall be conducted by the government witness.
- e. At the end of the test and to be witnessed by GSA-WPYG and/or DOS-DESD, contractor shall bleed the pressure from the gauge (take the gauge to zero) and then re-pressurize the gauge.
- f. A successful test is characterized by zero drop in gauge pressure AND no visible leaks in the system.

A.21.3.5. **Inspector's Test/Auxiliary Drain Valve:** The inspector's test and auxiliary drain valve shall be a ball type valve that provides the required restricted orifice when the valve is in the fully open position. Globe, gate, or other valves that "throttle" the water at a specific point in the open/close cycle shall not be used.

A.21.3.6. **Restraining Clips:** Hangers with restraining clips shall be provided at end sprinklers to counter the upward thrust of a discharging sprinkler. Restraining clips shall be used in lieu of extending the all-thread rod for ease of inspection and to help ensure that the hanger rod is fully engaged in the expansion shield in the slab above.

A.21.4. Automatic Fire Alarm System Requirements

A.21.4.1. **Fire Alarm System Design Drawings:** Indicate, as a minimum, any required demolition and demolition boundaries, proposed location of new devices, location and identification of existing circuits and devices. Devices on the modified notification appliance circuits (NACs) both within and out of the project area, point of connection to existing, required wiring types, circuit load calculations, and the fire alarm device wiring diagram shall also be included. Show location of existing FACU, NEP, or fire alarm sub-panel, that feeds the devices within the project. Rooms that house fire alarm control panels must have a minimum 1 hour fire rating in non-high rise buildings. Refer to GSA PBS-P100.

A.21.4.2. **Architect/Engineer Designed Projects:** Fire alarm work shall be designed by the A/E and completed by the general contractor. All required work and details to describe the required work shall be provided on the drawings and/or specifications.

A.21.4.3. **Designer Qualifications:** Where the fire alarm system modification only includes changes to notification devices, NACs and/or providing new sprinkler flow and tamper switches, the design may be included as part of the electrical drawings by the electrical engineer. If modifications to the fire alarm system include items beyond those listed above, then a dedicated fire alarm design drawing shall be provided, and the design shall be developed by a licensed fire protection engineer (FPE). All work associated with the design of the fire alarm and detection system shall be accomplished by personnel meeting the "System Designer" qualification requirements of NFPA 72.

A.21.4.4. **Fire Alarm Shop Drawing Development:** Fire alarm shop drawings shall be developed by a licensed FPE.

A.21.4.5. **Drawing Notes:** As a minimum, include the following notes on all fire alarm system design drawings and/or modify the specifications to indicate such. Notes may be edited based on specific project requirements:

- a. The existing fire alarm system is an intelligent addressable system consisting of networked Notifier Model NFS 3030 control panels with distributed XPIQ Voice Transponder Modules and ACPS-2406 Power Supplies for strobe notification. Modifications to the existing fire

SECTION A GENERAL STANDARDS

- alarm shall not void the UL Listing of the system.
- b. The contractor shall provide all wiring, raceways, pull boxes, outlet and mounting boxes, control equipment, and all other accessories and miscellaneous items required for a complete operating system in accordance with NFPA 72. All new devices added shall be UL listed and compatible with the existing system. All devices shall be new from the manufacturer in original manufacturer's packaging. Location of new junction boxes and fire alarm devices shall be coordinated with the Contracting Officer's Representative (COR).
 - c. All new fire alarm conduit and fire alarm back boxes shall be concealed unless otherwise noted. New fire alarm devices shall be flush mounted unless otherwise noted. All new junction boxes shall have cover plates provided that are painted red and have a permanent, machine printed label reading "Fire Alarm Circuit" and the circuit numbers contained within the junction box. All fire alarm conduits (concealed) shall be marked with red bands every 10 feet (3048mm).
 - d. All fire alarm equipment removed shall be boxed and returned to the DOS – DESD.
 - e. Demolition of existing fire alarm system devices, conduits, and circuits shall be performed with caution. The contractor shall be responsible for maintaining all existing-to-remain fire protection conduit, circuits, and devices in operational condition. In the event of damage to the existing fire alarm system or circuits, repairs to the existing fire alarm system shall be completed immediately.
 - f. All fire alarm work, including but not limited to raceway installation, device installation, wiring, and system programming, shall be performed by an electrical contractor and/or fire alarm supplier (as appropriate) with a minimum five years of experience in the installation of fire alarm systems.
 - g. All programming for the base building's Notifier fire alarm system shall be performed by Red Hawk, Inc. of Silver Spring, Maryland. Contractor shall be responsible for all programming re-programming costs of fire alarm device points added or modified as part of this contract.
 - h. Disconnection of existing fire alarm devices and final connection of new fire alarm devices from/to the building fire alarm system shall be made by the fire alarm equipment supplier/distributor in the presence of the GSA-WPYG. GSA-WPYG shall be responsible for continuity of operations of the fire alarm system during termination/connection operations.
 - i. During construction, no area of the building shall be without an operational fire alarm system except the project area.
 - j. Deep boxes shall be installed and connected to fire alarm junction boxes for alarm interface devices.
 - k. Flexible conduit (Greenfield) may be used from conduit raceway or junction boxes to alarm devices. Flexible conduit shall not exceed 6 feet in length.
 - l. The contractor shall notify the Contracting Officer's Representative (COR) prior to demolition of any walls or ceilings on which fire alarm devices are mounted.
 - m. When it is necessary to take the fire alarm system or a portion of the fire alarm system out of service, the contractor shall inform the COR at least 72 hours in advance. All temporary terminations must be adequately labeled and secured. The fire alarm system shall not be disturbed unless GSA-WPYG is monitoring the building FACP, and the fire alarm equipment supplier/distributor is performing the work.
 - n. Fire alarm wiring shall be solid copper. The wiring shall be run in new conduit – minimum ¾" (19 mm) EMT – and there shall be no other building system wiring in the fire alarm conduit.
 - o. Conductor types and color codes shall be as indicated in the Fire Alarm Conductor Table and as follows: Signaling Line Circuits, Speaker Circuits, and Strobe Circuits – one red (+) and one black (-) conductor; Supervisory Initiating Device Circuits – two #14 THHN black conductors; Alarm Initiating Device Circuits – two #14 THHN red conductors.
 - p. All new and modified fire alarm circuits shall be terminated at device lugs only. Splicing the fire alarm circuit will not be allowed unless the splice is via terminal strips located within the existing terminal cabinets. Existing wiring shall be removed back to the previous and next device on the modified circuit and replaced with new to avoid a field splice. Refer to the

Fire Alarm Device Wiring Diagram in **Appendix B-XIII**. Circuit integrity shall be maintained: T-Taps shall not be used.

- q. All shields must be terminated so as to daisy chain from one device to another without coming into contact with metal or ground. No group (star) connections are allowed. Drain wire shall be sleeved, and all wires to all devices shall be kept as short as possible.
- r. All wires shall be tested by mega ohm meter (meggered) for ground and shorts prior to connection of any fire alarm devices. This shall be witnessed by a government representative, and a record of the test shall be submitted to DESD.
- s. Prior to the start of renovation of the fire alarm system, contractor shall provide a fire alarm submittal to GSA's Environment & Fire Protection Branch (WPG) and DESD for review and approval to include the following information:
 - Cut sheets on all new fire alarm devices, equipment, and wiring;
 - Detailed wiring diagrams that differentiate between manufacturer-installed & field-installed wiring; include diagrams for equipment and for system with all terminals and interconnections identified;
 - Floor plans showing, as a minimum: device locations, load taps at each device, conduit runs, pull boxes, conduit fittings, circuit types, and circuit and device addresses;
 - Circuit load calculations – No fire alarm circuit shall be loaded above 75% capacity.
- t. Fire alarm system shall be installed in accordance with applicable codes and standards (most recent edition) including, but not limited to: NFPA 70, National Electrical Code; NFPA 72, National Fire Alarm Code; and NFPA 101, Life Safety Code.
- u. Government shall witness final testing of fire alarm devices. Contractor shall submit a report to the COR documenting the government witnessed test(s).
- v. During final acceptance test, the contractor shall field measure and record the actual current draw or wattage on all modified NACs. Measurement shall be taken at the source (FACP, extender panel, remote panel, etc.) of the modified circuit. For any new NAC, measure and record the voltage at the source and the voltage at the end device while the circuit is activated. Submit all recorded measurements to DESD.

A.21.4.6. Reference Drawings: Fire alarm "as-built" drawings are available for contractor use. Contact the appropriate A/OPR/RPM project manager to obtain R: Drive access to download electronic copies of the fire alarm as-builts, or contact DESD for an electronic or hard copy version of their most recent as-built drawings.

A.21.4.7. Fire Alarm Symbols: Refer to **Appendix B-IX** for a list of standard DOS approved fire alarm symbols. These symbols shall be used to remain consistent with existing as-built drawings.

A.21.4.8. ADA Compliance: Fire alarm strobe lights shall be provided within renovated areas in the following locations: reception/waiting areas, conference rooms, open office spaces, corridors, kitchen/kitchenettes, copy/fax rooms, lactation rooms, and in other areas as required due to special needs of a building occupant.

A.21.4.9. Notification Appliances: For proper synchronization of strobes, ease of maintenance, and a consistent appearance throughout, notification appliances shall be manufactured by Wheelock, Inc. E-Series devices or RSS Series devices shall be used. Strobes shall be multi-candela selectable and speakers shall be multi-watt selectable. Devices shall be wall mounted with red coloring unless otherwise required due to architectural features.

A.21.4.10. Smoke Detection: Smoke detectors shall only be installed in essential electronic equipment rooms, elevator lobbies and machine rooms, outside pressurized stair enclosures, HVAC systems, and other spaces as required by the building or Life Safety code. For raised floors, smoke detectors shall be installed to the underside of floor tiles with six foot whips and bypass



SECTION A GENERAL STANDARDS

switches to allow the tiles to be removed temporarily.

A.21.4.11. Essential Electronic Equipment Rooms: Refer to **Appendix B-XII** for fire protection requirements in essential electronic equipment rooms.

A.21.4.12. Secure Environments: In areas requiring a level of security that prevents normal wiring methods for speaker circuits, a Notifier Model FCM-1 Control Module shall be used in conjunction with the normal speaker circuit to achieve voice communication within these areas while maintaining the desired security protections. Refer to **Appendix B-XIII** for a wiring detail and installation requirements. In areas requiring a higher resistance to electronic surveillance, other more sophisticated means (such as a fiber optic transmitter/receiver system) may be necessary to achieve this goal. Contact DESD at 202-647-6001 for more information regarding these fiber optic systems. Final decision as to the required level of protection of these spaces is by DESD in consultation with DS.

A.21.5. Fire Alarm Outage Procedure

The fire alarm outage procedure outlined in this section is to be used for construction activities that require the building fire alarm systems to be taken out of service. The contractor shall provide temporary circuits as necessary to accomplish the outage. The temporary circuits must meet NFPA 70 and NFPA 72 standards. If temporary circuits are used, the wire must be FPLP rated, power limited. Fire alarm circuits may be jumped out of the contractor's fire alarm equipment supplier/distributor only upon review of the detailed plan by FPE's and DOS/FMS. All temporary terminations must be adequately labeled and secured.

A.21.5.1. WPC must call the GSA Special Service Center (SSC) with a 72 hour advance notice to request fire alarm technicians from either the GSA/SSC or from ISA. If none are available for the time and date requested, then WPC must call Antronix to see if their fire alarm technicians are available. (There are over 10 badged and cleared Antronix employees and 5 badged and cleared ISA employees who currently have a site security clearance with DOS and DOD.)

A.21.5.2. After guaranteeing the availability of badged and cleared fire alarm technicians for a set time and date, the next step is filling out the following listed forms for approval and signature of FMS Fire and Life Safety.

- a. Main DOS Information Request Form
- b. GSA/SSC Fire Protection Outage Request Form
- c. U S DOS Fire Protection Outage Request Form

A.21.5.3. After the above 3 forms are signed and approved by FMS Fire and Life Safety, they are then forwarded to the GSA/SSC for action to notify the appropriate fire alarm technicians (GSA or ISA) and their on-duty government fire alarm shop employee of the final established time and date of the proposed fire alarm outage. (If Antronix fire alarm technicians are to be used then WPC will notify them of the proposed time and date.)

A.21.5.4. At the time of the scheduled fire alarm outage, the on-duty Fire Alarm (FA) Technician and the WPC employee assigned to the outage will jointly set up the following step-by-step routine for safely taking the Building out of service from the Building Fire Alarm Control Room.

- a. Workers are notified that no work is to proceed until the WPC employee notifies them that the fire alarm system has been safely taken out of service. In the building fire alarm control room there is a written procedure on how to shut down the fire alarm system with appropriate phone numbers to the GSA/SSC and Department of Homeland Security (DHS) MEGA Center.
- b. The FA technician calls the DHS MEGA Center and informs them that a fire alarm outage has been set up for DOS and that they should contact GSA WPYG to start implementing



the procedure for taking the FA System out of service.

- c. GSA WPYG then proceeds to take the building out of service and notify (by phone) the FA technician at the building fire alarm control room that the building has been taken out of service. The FA technician must make sure to record the time the building was taken out of service and the DHS operator's telephone number.
- d. The FA technician then proceeds with manipulating the Building Fire Alarm Panel to insure that no false alarms of any kind are triggered and transmitted to the GSA/SSC or the Fire Department. Once this is verified, the WPC employee is notified that the Building is out of service and construction activities can commence.
- e. WPC employee notifies the construction workers that work can begin.

A.21.5.5. After construction activities are completed, the Fire Alarm System can be re-activated. The above procedures must be completed as follows:

- a. The FA technician contacts the GSA/SSC and informs them that the work has been completed and the building can be restored to service.
- b. The GSA/SSC puts the FA System back in service and notifies the DHS MEGA Center and the FA technician at the building fire alarm control room. The FA technician records the time the building was put back in service and the DHS operator's telephone number.
- c. The technician then puts the building FA panel back in service and makes sure there are no trouble signals.
- d. After the FA Panel is clear and on-line, the WPC employee is notified that the building is once again on line.

NOTE If a fire alarm outage is necessary for welding etc., then GSA Form 1755 (permit for welding, cutting or brazing) must also be added to the forms being issued to FMS Fire/Life Safety for approval and signature. Refer to **Appendix A-X**.

A.22. PLUMBING

All building practices and installations of plumbing systems in DOS Domestic Facilities shall follow the National Codes and Standards as stated in the latest edition of the General Requirements (at the time of construction) of the GSA, PBS-P100. Notice of any outages required during the construction project shall be submitted with a minimum of a two (2) week lead-time, to give building management time to evaluate the various systems and consequences of the outage.

A.22.1. Lock-out/Tag-out

All plumbing components and fixtures being worked on and the equipment feeding them shall be "locked out and tagged-out" until the completion of the project. The components are locked to prevent access, and so identified by placement of a tag.

A.22.2. Drinking Fountains

New or replacement drinking fountains shall be ADA compliant two (2) station drinking fountain with bottle filling station.

A.23. HEATING, VENTILATION, AND AIR CONDITIONING

A.23.1. ASHRAE Standards

Current ASHRAE Ventilation Standards shall be met.

A.23.2. Ductwork

All ductwork shall be constructed in accordance with the SMACNA HVAC duct construction standards, current edition. Whenever possible, utilize external duct insulation rather than internally lined ductwork.



SECTION A GENERAL STANDARDS

A.23.3. Thermostats

Top of thermostats shall be at 54 inches above finished floor. Thermostats are to be adjusted by authorized personnel only.

A.23.4. Lock-out/Tag-out

All mechanical equipment and related components being worked on shall be "locked out and tagged-out" until the completion of the project. The equipment is locked to prevent access, and so identified by placement of a tag.

A.23.5. Convectors

In the event a facility contains convectors, access shall be provided to allow for the maintenance of these units. Fixed furniture shall be located a minimum of 10" from the convectors. Fixed systems furniture plans that are located closer than 10" shall have open panels to provide access.

A.23.6. Power Usage Effectiveness (PUE)

The FMS target Power Usage Effectiveness (PUE) is within the range of 1.2 to 1.3 for data centers in accordance with Executive Order 13693. Additional federal energy guidance is provided by DOE Federal Energy Management Program (FEMP) and compliance is checked by OMB/CEQ with DOE / FEMP data and reported twice each year via agency scorecard. This aligns with agency submissions of Green House Gas Inventory (January) and Strategic Sustainability Performance Plan (June). AE deliverables need to support DOS energy and sustainability goals. Federal sustainability is defined by compliance with Guiding Principles. Refer to "'Guiding Principles for Sustainable Federal Buildings and Associated Instruction," Council on Environmental Quality, 2016; and companion supplement: "Determining Compliance with the Guiding Principles from sustainable Federal Buildings," February 2016.

Where possible, outside air for these spaces should be heated with the heat generated by the IT equipment in the space. The hot aisle – cold aisle air flow concept or an approved substitute must be used in all data centers. The room design temperature set-point shall be 75°F or greater (in a room not occupied) unless otherwise stated. Follow current DOE guidelines in all data center projects. Dehumidification, if used, must be justified by the design engineer. The engineer shall provide a PUE calculation for all data centers. Energy efficiency of HVAC equipment must be designed to meet the minimum requirements of ASHRAE Standard 90.1

A.23.7. BACnet Communication Protocol

The communications protocol for the BAS shall be Native BACnet. The field panels shall provide BACnet communications directly, device to device. The devices shall be tested by and recognized by a BACnet Testing Laboratory (BTL) and are required to obtain a BTL Mark. No intermediate (Gateway) devices shall operate between the BACnet workstation and the field devices. No intermediate (Gateway) devices shall be used to translate the manufacturers' communications protocol to BACnet.

A.23.8. Sequence of Control

All automatically controlled HVAC equipment and systems shall have a sequence of control. The written sequence shall be on the mechanical drawings only, with a graphic diagrammatic depiction of the equipment or system. Control valves, control dampers, temperature, pressure, humidity sensors, smoke detectors, pressure differential sensor freeze-stats, variable frequency drive control, energy meters, etc., shall be shown. The graphic shall be used for the BAS front-end display. The graphic shall show the equipment tag.

A.23.9. Underground Fuel Storage Tanks

The complete standards for new and existing fuel systems can be found on ProjNet/RPM Portal/ Collection Area for Standards and Guidelines/DOS-Standards and Guidelines.

A.23.9.1. The basis for design is double-wall fiberglass-reinforced plastic (FRP) with provisions for

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interstitial monitoring. All new underground fuel storage tanks must be constructed of either FRP or steel-fiberglass-reinforced composite and be double walled with interstitial leak sensor.

A.23.9.2. A tank constructed of fiberglass-reinforced plastic (FRP) must comply with:

1. Underwriters Laboratories Standard 1316, "Standards for Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products"; or
2. American Society of Testing and Materials Standard D4021-86, "Standard Specification for Glass-Fiber-Reinforced Polyester Underground Petroleum Storage Tanks."

A.23.9.3. A tank constructed of steel-fiberglass-reinforced plastic composite must comply with:

1. Underwriters Laboratories Standard 1746, "Corrosion Protection Systems for Underground Storage Tanks"; or
2. Association for Composite Tanks ACT-100, "Specification for the Fabrication of FRP Clad Underground Storage Tanks."

A.23.10. Above Ground Tanks (Including Day Tanks)

The complete standards for new and existing fuel systems can be found on ProjNet/RPM Portal/ Collection Area for Standards and Guidelines/DOS-Standards and Guidelines. No new aboveground fuel tanks are to be installed in the building without written approval from DESD fire protection engineering section.

A.23.10.1. The basis of design for all new above ground tanks, including day tanks and sub-base generator tanks, is double-wall steel with provisions for interstitial leak monitoring.

A.23.10.2. Tanks installed near exterior building walls, parking lots, or other open spaces must be protected from damage by barricades or bollards.

A.23.10.3. A tank constructed of steel must comply with: Underwriters Laboratories Standard 142, "Aboveground Tanks for Flammable and Combustible Liquids".

A.23.11. Underground Piping

The complete standards for new and existing fuel systems can be found on ProjNet/RPM Portal/ Collection Area for Standards and Guidelines/DOS-Standards and Guidelines. No new aboveground fuel tanks are to be installed in the building without written approval from DESD fire protection engineering section.

A.23.11.1. All fuels piping installed underground must be constructed of double-walled, inert material such as flexible petroleum piping or fiberglass-reinforced plastic (FRP). Federal regulations allow the use of steel that is cathodically protected; but use of this design is not approved at DOS facilities

A.23.11.2. The basis of design for fuel supply and return piping is double-wall flexible piping with provisions for interstitial monitoring.

A.23.11.3. The basis of design for underground fuel tank vent pipes is FRP.

A.23.11.4. Flexible petroleum piping must meet:

1. Underwriters Laboratories Standard 971, "Nonmetallic Underground Piping for Flammable Liquids; or
2. Underwriters Laboratories UL 536, "Flexible Metallic Hose"; and
3. Underwriters Laboratories Standard 567, "Pipe Connectors for Flammable and Combustible and LP Gas."

SECTION A GENERAL STANDARDS

A.23.12. Above Ground Piping

The complete standards for new and existing fuel systems can be found on ProjNet/RPM Portal/ Collection Area for Standards and Guidelines/DOS-Standards and Guidelines. No new aboveground fuel tanks are to be installed in the building without written approval from DESD fire protection engineering section.

A.23.12.1. The basis of design for new above ground fuel piping is double-walled steel with isolation with a nonconductive fitting (electrical insulator) between the components to eliminate electrical current flow.

A.23.12.2. Preferably, if the need arises to replace any existing above ground fuel system piping, it should all be replaced with double wall steel piping and, where needed, isolation fittings.

A.23.12.3. Piping and valves constructed of steel must meet:

1. National Fire Protection Association Standard 30, "Flammable and Combustible Liquids Code."
2. Underwriters Laboratories Standard 330, "Standard for Hose and Hose Assemblies for Dispensing Flammable Liquids."
3. Underwriters Laboratories Standard 842, "Standard for Valves for Flammable Fluids."

A.23.13. Leak Detection

The complete standards for new and existing fuel systems can be found on ProjNet/RPM Portal/ Collection Area for Standards and Guidelines/DOS-Standards and Guidelines.

A.23.13.1. The basis of design for leak detection for new underground tanks and underground piping is:

1. An automatic tank gauging system; and
2. Electronic leak detection for piping; and
3. Interstitial monitoring of both tanks and fuel supply and return piping.

A.23.14. Spill and Overfill Protection

The complete standards for new and existing fuel systems can be found on ProjNet/RPM Portal/ Collection Area for Standards and Guidelines/DOS-Standards and Guidelines.

A.23.14.1. The basis of design for spill protection of new underground fuel tanks is:

1. A catchment basin for each fill pipe; AND
2. A liquid-tight composite material sump around all the fill pipes.

A.23.14.2. The basis of design for overfill protection of new underground fuel tanks and new above ground tanks (including day tanks and sub-base generator fuel tanks) is an overfill alarm activated by the automatic tank gauging system (ATGS) when the tank is 90% full; with an audible and visual alarm located near the ATGS control panel with another alarm located near the fill point so the delivery truck driver can easily hear it.

A.23.14.3. Additionally for new above ground tanks (including day tanks and sub-base generator tanks) fill points must be located within:

1. A spill containment area; OR
2. A liquid-tight sump or an impervious curb/dike capable of containing the fuel when the delivery hose is detached from the fill pipe; AND
3. Be equipped with a liquid-tight coupling (OPW633AST or equivalent) and lockable dust

cover (OPW634BK or equivalent).

A.23.15. Automatic Tank Gauging Systems (ATGS)

The complete standards for new and existing fuel systems can be found on ProjNet/RPM Portal/Collection Area for Standards and Guidelines/DOS-Standards and Guidelines.

A.23.15.1. The basis of design for automatic tank gauging system is a Veeder-Root TLS 350 or TLS 300 with the following capabilities:

1. EPA approved in-tank leak detection for multiple tanks (0.1 GPH volumetric tank testing for underground tanks and 0.2 GPH monthly monitoring for both underground and above ground storage tanks);
2. Continuous inventory monitoring and reporting;
3. Interstitial/sump leak sensing;
4. Data input/output;
5. Data communications with available option card that allows a connection via Modbus TCP;
6. Printed documentation (integral printer and/or remote printer interface);
7. Audible and visible alarms and warnings activated for the following conditions: leak, overfill, low fuel level, high water level in tank, fuel delivery required, test failure, tank test not performed;
8. Multi-tank monitoring;
9. Maximum tank capacity at least as great as the largest tank in the facility fuel system;
10. Leak testing and reconciliation for tanks connected by manifold.

A.23.16. Installation of Fueling Systems

The complete standards for new and existing fuel systems can be found on ProjNet/RPM Portal/Collection Area for Standards and Guidelines/DOS-Standards and Guidelines. No new aboveground fuel tanks are to be installed in the building without written approval from DESD fire protection engineering section.

A.23.16.1. Tanks, piping and associated equipment must be installed in accordance with the manufacturer's instructions and:

1. American Petroleum Institute Publication 1615, "Installation of Underground Petroleum Storage Systems"; or
2. Petroleum Equipment Institute Publication RP100, "Recommended Practice for the Installation of Underground Liquid Storage Systems"; or
3. American National Standards Institute Standard B31.4 "Liquid Transportation Piping Systems."

A.23.16.2. The installing contractor should submit documentation including photographs, receipts for equipment purchases, drawings, work plans, and other information that substantiates that the manufacturer's instructions, as well as the standards and publications listed above, were followed. This documentation includes, but is not limited to:

1. Construction material of the tank;
2. Internal and external protection of the tank;
3. Construction material and protection systems for piping;
4. Qualifications and certifications of installer;
5. Systems for detecting pipe and tank leaks; and
6. Results of pre-commissioning testing;
7. Signature of authorized company agent attesting that the information submitted is true and accurate.

SECTION A GENERAL STANDARDS

A.23.17. Pre-Commissioning Inspection and Testing of Fueling Systems

The complete standards for new and existing fuel systems can be found on ProjNet/RPM Portal/Collection Area for Standards and Guidelines/DOS-Standards and Guidelines.

A.23.17.1. Following completion of the fueling system installation:

1. Complete an integrity test of the entire fueling system, including all tanks and piping. This test will preferably be conducted by a qualified, third party inspector after the storage tanks have been filled with fuel.
2. Test all required features of the ATGS.
3. Test all leak sensors (e.g., interstitial).
4. Test all containment devices (e.g., catchment basins) to ensure they are liquid tight.
5. Test the automatic shutoff devices:
6. A qualified Underground Storage Tank (UST) contractor must check to ensure the automatic shutoff device is functioning properly and that the device will shut off fuel flowing into the tank at 95% of the tank capacity.
7. Ensure the float operates properly.
8. Ensure that there are no obstructions in the fill pipe that would keep the floating mechanism from working.
9. Inspect the overfill alarm for proper operation at 90% of tank capacity.
10. Inspect all fill/monitoring ports and other access points to make sure that the covers and caps are tightly sealed and locked.

A.24. RESERVED – Section under Development by CSI

A.25. INTEGRATED AUTOMATION

A.26. ELECTRICAL

A.26.1. Wiring

A.26.1.1. Work Standards: All electrical methods, materials, equipment, work and installations shall meet the requirements of the most current edition of the National Electrical Code (NEC). Methods, materials, equipment, work, installations, and safety procedures must also meet the requirements of the National Fire Protection Association (NFPA) 70E, Standard for Electrical Safety in the Workplace, most current edition.

A.26.1.2. Unused Electrical Wiring: Any wiring that is not to be used (i.e. an electric outlet that is removed) must be disconnected from the electrical panel and removed from the conduit. Any unused conduit shall be removed. Any unused wiring in underfloor ducts, along with associated plastic connectors (e.g. tombstones), shall be removed and recycled.

A.26.1.3. Unused Telecommunications Wiring: Existing telecommunications wiring that is no longer in use and is not tagged and identified for future use in and within the limits of work shall be disconnected and removed per the National Electrical Code NFPA 70 article 800.25. Existing telecommunication conduit that is no longer in use shall be removed and recycled.

A.26.1.4. Plenum-Rated Wiring: If the ceiling is treated as a return plenum, all wiring shall be plenum-rated.

A.26.1.5. De-energizing Circuits: If branch circuits are to be turned off to disconnect, remove or modify existing wiring, every effort shall be made to investigate what other offices outside the

(b) (6)

renovated area these circuits serve. The electrical contractor shall coordinate with and minimize the impact to these other offices. By the end of each working day, the electrical contractor shall secure all electrical wires in a safe and secure manner and shall restore all circuit breakers to the original setting. Work shall not be performed on any panels or electrical equipment while they are energized, unless the work meets one of the following exceptions:

- De-energizing introduces additional or increased hazards. (This exception should be extremely rare. In this case, an energized work permit must be submitted to A/OPR/FMS for review).
- Diagnostic testing: an energized work permit is not required for diagnostic testing. However, appropriate arc flash, and shock personal protective equipment (PPE), are still required.

A.26.1.6. All conductors in ceiling cavities, floor cavities and within walls shall be inside metal pipe conduit electrical metallic tubing (EMT) or better.

A.26.1.7. Grounding Conductor: All new electrical installations shall have a green insulated equipment grounding conductor. All electrical boxes in which a receptacle or switch is installed shall have a green grounding screw or grounding pigtail installed prior to the rough-in inspection.

A.26.1.8. Conductors: All branch circuit and feeder conductors shall be copper. Wire sizes #10 and #12 AWG shall be solid copper conductors, and wire sizes #8 and larger shall be stranded copper conductors.

A.26.1.9. Voltage Drop: All newly installed conductors shall limit total voltage drop to a maximum of 3%.

A.26.1.10. De-rating Factors: Conduit fill and de-rating factors shall meet the requirements of the NEC.

A.26.1.11. Metal Conduit: All power wiring in all spaces shall be installed in metal conduit, primarily in EMT. All conduit fittings shall be steel. Die-cast fittings are not allowed. The minimum size conduit permitted is ¾-inch. PVC conduit shall not be used.

A.26.1.12. Rigid Metal Conduit: Rigid metal conduit shall be used where surface conduits are subject to damage or when conduits are installed in concrete. Use threaded fittings only; set-screw type are not allowed.

A.26.1.13. Flex Conduit and MC Cable: All fittings shall be steel. Use of quick-connect fittings are not allowed. The use of armored cable (AC) is not allowed. Metal clad (MC) cable and flexible metal conduit are permitted only to a maximum length of 6 feet for fixture whips or for movement. If specified, only plenum-rated liquid tight flexible metal conduit or EMT shall be used under a computer room floor.

A.26.1.14. Conduit Separation: At no time is any metal conduit or MC cable to come into contact with any water, sprinkler or copper pipes. It is required to keep 2 inches of separation from these pipes or any dissimilar metals

A.26.1.15. Conduit Support: All electrical and communication conduit and wiring installed in the hallway ceilings shall be supported by a support system attached to the concrete ceiling. This support system and conduit shall be completely independent from the pan or drop ceiling.

A.26.1.16. Circuit Identification and Labels: All labels used for circuit identification shall be a minimum ¾ inch tall, black numbers on white background, self-adhesive and machine-generated labels. All receptacle cover plates, junction boxes and electrical equipment shall have labels

SECTION A GENERAL STANDARDS

with the circuit numbers, panel numbers and the electrical closet numbers

A.26.1.17. **Listed and Labeled Products:** All electrical products, material and equipment being installed shall be listed and labeled by a nationally recognized testing laboratory (e.g., Underwriters Laboratories).

A.26.1.18. **Fire-stopping:** The electrical contractor shall not breach or penetrate any fire resistance rated barrier unless the contractor is prepared to fire-stop the opening. Any new breach or penetration in an existing fire-rated barrier shall be restored to the original fire-stopping rating within 24 hours of the creation of the breach or penetration.

A.26.1.19. **Shared Neutrals:** All 120-volt and 277-volt branch circuits shall have a dedicated neutral. Shared neutrals are not permitted. If a room or suite is renovated and there is an existing multi-wire branch circuit, the circuit breaker disconnecting means shall be two-pole or three-poles, as appropriate.

A.26.2. Dedicated Power

Dedicated power shall only be provided for high current, immediate power input, pieces of equipment, i.e. copiers, laser printers, refrigerators, etc. Personal computers shall be powered from normal convenience power. Dedicated outlets shall be colored gray and shall be identified as dedicated on the outlet cover. The circuit and panel number shall also be on the outlet cover.

A.26.3. Receptacles and Switches

A.26.3.1. **Color:** Electrical switches and receptacles shall be bright white or ivory.

A.26.3.2. **Cover Plates:** Cover plates shall be made of metal, and shall be bright white, ivory or stainless steel.

A.26.3.3. **Heights:** ADA guidelines shall govern the mounting height of accessible electrical devices. Electrical and telecomm outlets shall normally be installed at 15" AFF to centerline. Above counter tops, the height shall be 46" AFF to centerline (with a minimum 8" to centerline above counter top). Wall switches shall be installed at 48" AFF to centerline.

A.26.3.4. **Existing Receptacles:** For all new renovations where locations of existing receptacles and wiring are to be retained, the existing receptacles and cover plates themselves shall be replaced. These circuits must be de-energized before beginning the replacement and remain off until all receptacles are replaced.

A.26.4. Lighting

A.26.4.1. **Lighting Design:** The lighting system shall provide a pleasing and efficient visual environment conducive to productive occupant use. Ambient lighting by soft indirect glow enhances architectural aesthetics, increases occupant comfort, reduces glare, increases energy efficiency, and improves productivity. Utilize natural light sources to provide for maximum access to views and daylight delivery.

A.26.4.2. **Controllability:** The lighting design should also provide for a high level of controllability by individual occupants or groups in multi-occupant spaces.

A.26.4.3. **Power Density:** Energy usage for overall lighting shall not exceed an average of 0.75 Watts/SF. This number is 30% below the ASHRAE 90.1 baseline of 1.1 Watts/SF in order to comply with EISA requirements. Additional LEED credits can be achieved by designing to lower power density levels. Our goal is to reduce energy consumption as mandated by Executive Order 13423

(b) (6)

for all Federal buildings.

A.26.4.4. Lighting illumination levels (foot candles) are to be appropriate to the space utilization/ type of activity in accordance with the most current guidelines established by the Illuminating Engineering Society of North America (IESNA) and by the GSA P-100.

A.26.4.5. Lighting Calculations: Designer shall provide lighting calculations, including lighting maps, for all lighting designs. Calculations shall indicate the method used to obtain interior illumination levels.

A.26.4.6. Conference Room Lighting: For conference rooms it is desirable to have multiple levels of lighting. Dual switching with two-stage dimming ballasts is the preferred low-cost solution. Linear dimming ballasts are acceptable where more lighting control is required.

A.26.4.7. Emergency Lighting: As required by all applicable codes and standards.

A.26.4.8. Daylighting Controls: Consider daylight-responsive controls in all regularly occupied spaces within 15 feet of windows. A simple payback analysis shall be performed during design to determine the cost-effectiveness. Design must provide a minimum five year payback. Daylight control systems shall include ceiling-mounted occupancy sensors and wall-mounted over-ride switches.

A.26.4.9. Building Automation System (BAS): Lighting control systems provide significant improvements in energy conversation. If provided, controls shall utilize open protocols down to the device level. General controls shall be compatible with the BAS

A.26.4.10. Light Fixtures: General office lighting will use LED fixtures (4000 degrees Kelvin or greater and 80+ CRI). Lighting shall be 277 volts. Light fixtures within a suite shall be of the same model and manufacturer.

A.26.4.11. Fixture Support: Fluorescent fixtures shall be supported using a minimum of two UL approved concrete anchors, one at each end of the fixture.

A.26.4.12. Exit Lights: LED energy efficient fixtures manufactured by Lithonia Lighting shall be precise edge-lit, with red lettering on white background. Part numbers are as follows:

- a. Rough-in box Part# ELA LRIS 120/277,
- b. Single-faced right hand arrow Part # LRP W 1 RW RA 120/277 PNL,
- c. Single-faced left hand arrow Part # LRP W1 RW LA 120/277 PNL,
- d. Double-faced, one arrow each side Part # LRP W 2 RW DA 120/277 PNL,
- e. Single-faced, no arrow Part # LRP W 1 RW 120/277 PNL.

A.26.4.13. Occupancy sensors: Occupancy sensors for private offices and open office areas shall be dual-technology Watt Stopper or equivalent. Upon request, DOS can provide a letter to Watt Stopper authorizing the general contractor to receive GSA schedule prices. The recommended practice is to install ceiling-mounted occupancy sensors with wall-mounted override switches. Refer to manufacturer's specifications regarding correct applications (i.e. dual technology sensors for open areas and conference rooms, etc.).

A.26.4.14. Emergency Lighting: Emergency lighting shall function in accordance with NFPA 101 and be installed in accordance with NFPA 70.

A.26.4.15. Emergency Power for Lighting: All emergency lighting and all exit lights for new renovations shall be supplied from the existing emergency lighting panel, usually in an electrical

SECTION A GENERAL STANDARDS

vault. The A/E shall locate existing emergency lighting circuits, perform a load survey and calculations, and determine the circuit's suitability for use with the new emergency lighting fixtures. Battery back-up emergency lighting luminaires (fixtures) shall not be used. Unit equipment type emergency lighting with battery backup shall be provided for generator rooms only. Emergency lighting with battery backup must be provided in generator rooms. Refer to NFPA 110.

A.26.4.16. Task Lights: Task lights shall be UL listed energy efficient LED fixtures. The finish color shall be determined by the RPM Designer. A passive infrared occupancy sensor shall be provided. A rocker switch shall be included for the lamp. Length of the task light shall be coordinated with the systems furniture.

A.26.5. Emergency Power

The need for emergency power to service an area shall be based on the criticality of the functions within that area, and approved by A/OPR/RPM and A/OPR/FMS in the final program of requirements from the organizational unit. Unit equipment type emergency lighting with battery backup shall be provided for generator rooms only.

A.26.5.1. Emergency power will be considered for the following functions:

- As required for life safety and security;
- Telephone system within communication equipment rooms (up to 30 minutes of UPS);
- Mission critical activities; including direct support of the Secretary of State, financial transactions such as with Charleston Global Financial Services (CGFS), and main data centers;
- BAS (HVAC Controllers) for field equipment, chillers, cooling towers, air-handlers, etc. supporting the functions described above.

A.26.5.2. Emergency Power Waiver Request: Waivers for functions that are not listed in A.26.5.1 will be considered on a case by case basis. When submitting the final program of requirements the customer Bureau shall send a waiver request to A/OPR explaining the criticality of the operation and shall confirm the availability of funding for emergency power throughout the life cycle of the system (including its initial cost and its operation and maintenance). Waivers cannot be considered after the final program of requirements has been submitted to RPM.

A.26.5.3 Uninterruptable Power Supplies: Where central UPS equipment is proposed by any tenant, the design documents must be reviewed by A/OPR/FMS/DESD. Non-approved UPS equipment shall not to be installed in any building. UPS equipment shall not be used as a substitute for emergency generators where required standby time exceeds 1 hour.

A.26.6. Electrical Service for Renovated Space

A.26.6.1. In general, the number of outlets shall be calculated at not less than 200 volt-amperes for each single or for each multiple receptacle on one strap.

A.26.6.2. Non Computer Power Feeds: Power distribution is to include a minimum of one electrical receptacle on each wall for interior office spaces, one duplex per system furniture workstation and a minimum of one electrical receptacle for each 10 feet of interior corridors, unless otherwise noted. General purpose outlets will not exceed a total of eight (8) duplex receptacles per circuit.

A.26.6.3. Computer Power Feeds: A full two computer installation (equivalent of 4 devices ~ 500 watts) for each individual user (whether occupying a hard-wall office or systems furniture workstation) is the standard design, unless otherwise noted. Consult with the project manager if the client requires additional services beyond the standard design of a two computer installation for each workstation. Each individual user is to have a minimum of two duplex receptacles for

computer power feeds and there should be one circuit for three users (e.g. 6 duplex receptacles) or not to exceed 1600 watts per 20A, 120V circuit.

A.26.7. Wiring of Systems Furniture

A.26.7.1. Electrical Whips: The general contractor shall be responsible for directing the electrical contractor to install electrical whips after installation of systems furniture. Whips shall be shortened in order to avoid loops and excessive lengths. For demountable partitions the electrical contractor may be required to install electrical cabling within the demountable walls.

A.26.7.2. Number of Circuits: Industry standard systems furniture provides the option of connecting to one, two, three or four circuits in a junction box per "base feed" (in-feed) connection. DOS standard power configuration for systems furniture shall be 8 conductors supplying 3 circuits: 3 ungrounded conductors, 3 neutral conductors and 2 grounding conductors. The number of circuits provided from the building infrastructure to a systems furniture cluster "base feed" should be based on the planning design criteria in A.25.6 and the number of stations in the cluster. For example:

- A single stand-alone workstation does not require a base feed. Power may be accessed via wall outlets or terminations.
- A cluster of 1, 2 or 3 workstation(s) requires one (1) circuit.
- A cluster of 4, 5 or 6 workstations requires two (2) circuits.
- A cluster of 7, 8 or 9 workstations requires three (3) circuits.
- A cluster of 10 or more stations requires more than one "base feed."

A.26.7.3. Power Poles: Power poles shall not be used unless it has been determined it is not feasible to run wiring in the ceiling or underfloor duct system.

A.26.8. Electrical Panels

A.26.8.1. Panelboards: All new panelboards shall accept the bolt-on type circuit breakers, the buss shall be made of copper and the interior covers shall be hinged.

A.26.8.2. Lock-out/Tag-out: All electrical panels being worked on and the equipment feeding them shall be "locked out and tagged-out" until the completion of the project. The panels are locked to prevent access, and so identified by placement of a tag.

A.26.8.3. Panel Schedules: All new, modified or spare circuits shall be identified in the panel board schedules with the room and individual office numbers.

A.26.8.4. Minimum Circuit Breaker Size: All new circuit breakers shall be no less than 20 amps

A.26.8.5. Electrical Capacity Available: The A/E shall perform an electrical survey of the panels in electrical closets. The design shall reallocate service to maximize panel capacity among the existing panels. Breakers that are unused shall so be designated. The A/E's design is to make use of existing breakers and spares to avoid installing new electrical panels.

A.26.8.6. New Electrical Panel Locations: New electrical panels shall be located either in existing electrical closets, new electrical closets, or electrical vaults. The intent is to ensure that building management staff (A/OPR/FMS) can have unimpeded access to these panels without requiring access through other areas. Exceptions to this shall be approved by A/OPR/FMS. The minimum size for new electrical panels is 225 amps.

A.26.8.7. Branch Wiring Paths: Office suites shall be fed from the nearest electrical closet. To

(b) (6)



SECTION A GENERAL STANDARDS

assist FMS in electrical outage notification purposes, it is desirable to avoid feeding spaces across expansion joints, except for short distances within a suite. If conduits do cross an expansion joint, appropriate expansion fittings shall be used.

A.26.8.8. Isolated Neutral: The neutral in all new panels shall not be connected to the equipment grounding conductor in order to prevent a parallel path on the grounding conductor.

A.26.8.9. Labeling: New electrical panels and other electrical equipment >50V shall have a shock and arc flash analysis performed in accordance with NFPA 70E, current version and be labeled with the appropriate arc flash and shock hazard warning label. An acceptable label format is provided in **Appendix B-XIX: Arc Flash and Shock Hazard Warning Label**.

A.26.9. Transformers

A.26.9.1. Grounding and Bonding: On all transformers and separately derived systems, the bonding of the neutral and the grounding conductor shall be done at the transformer terminals.

A.26.9.2. Grounding Riser: All new separately derived systems, or transformer grounding conductors, shall be connected to the building grounding riser in the electrical closet.

A.26.9.3. Labeling: New transformers and other electrical equipment >50V shall have a shock and arc flash analysis performed in accordance with NFPA 70E (current version), and be labeled with the appropriate arc flash and shock hazard warning label. An acceptable label format is provided in **Appendix B-XIX: Arc Flash and Shock Hazard Warning Label**.

A.26.10. Testing

A.26.10.1. New Equipment & Wiring: All new feeder conductors, transformers, switchboards and draw-out circuit breakers shall be tested by a testing company that is a member of the International Electrical Testing Association (NETA). The lead tester shall be a NETA Level 3 Test Technician.

A.26.10.2. Used Circuit Breakers: When re-used, molded-case or other reconditioned circuit breakers 100-amps or greater are installed in existing panelboards or switchboards, they shall be tested by a testing company that is a member of NETA.

A.27. COMMUNICATIONS

A.27.1. Infrastructure Components

All Communication System components shall be installed per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA installations standards.

A.27.2. Pathway Component

EMT conduits and junction boxes shall be provided in sufficient quantities to fully support work area outlet and system furniture workstation base feed cluster requirements. Junction boxes shall be installed in the order shown in the work area outlet drop details with sufficient spacing so that the faceplates do not overlap.

- EMT conduits
- EMT through wall sleeves
- Zone Box
- Cable tray
- Ladder rack
- Through slab core holes

- J-Hooks
- Floor boxes/Communications box/Devices (Floor poke-through)

Note: Minimum conduit size is 1". Not to be confused with the minimum conduit size for electrical, which is ¾.

A.27.2.1. Any areas designated for communications equipment (patch panels) shall have an isolated grounding bar installed next to the equipment. The grounding bar is to be grounded by a separate insulated grounding conductor installed in EMT from the buss bar in the communications equipment.

A.27.3. Designation of Classified Cabling and Equipment

This section has been moved. See section A.27.6.3 Telecommunications Security.

A.27.4. Communication Equipment Rooms (CERs)

The term Telecommunications Room is the commonly used industry designation. This is equivalent to the term Communications Equipment Room (CER) used by the Telecommunications, Wireless, and Data Services Division (TWD) at the U.S Department of State. For the purpose of this design document, CER shall be used to identify the termination locations for the Communications Systems cable infrastructure. A CER shall under normal conditions, be "floor serving". In addition, no other equipment outside of TWD's should be contained within TWD cabinets.

A.27.4.1. The following CER sections are intended only for establishing minimum standards for the design, construction and furnishing of Communications Equipment Rooms. The actual design of such rooms shall be determined by the operational requirements of the users of these facilities. It should be born in mind that any and all of the functions and furnishings of these various types of rooms can be combined in the same location. The term Telecommunications Room is the commonly used industry designation. This is equivalent to the term Communications Equipment Room (CER) used by DOS.

A.27.4.2. According to ANSI/TIA/EIA, Communications Equipment Rooms differ from Equipment Rooms in that they are generally considered floor-serving (as opposed to building-or campus-serving) spaces that provide a connection point between backbone and horizontal distribution pathways.

A.27.4.3. Designs must consider occupant comfort and efficiency (i.e. ergonomics, lighting, etc.), as well as special ventilation design. In general – consideration should be given to isolated space for people vs. computer equipment.

A.27.5. Typical Drop Details

Information Resources Management (IRM) has provided a typical drop detail for the installation of classified and unclassified data and voice connections. Details provided in **Appendix A-VI: Typical Drop Details and Notes** and **Appendix A-VII: Zone Box Detail**. A/E shall utilize typical work area outlet drop set details provided by the Telecommunications, Wireless, and Data Services Division (TWD) at the U.S Department of State. See **Appendix A-VI** and **Appendix A-VII** for typical drop set details for the installation of LAN-1, LAN-2, and LAN-3 connections.

A.27.5.1. Zone boxes shall serve to make permanent the horizontal cabling from CER to zone box.

- Zone boxes shall be installed in ceiling grids.
- Zone boxes shall be designed to accommodate Voice/LAN1, LAN2 and LAN3 services.
- Zone boxes shall be designed and cabled to support 12 or more standard workstation drop sets.

SECTION A GENERAL STANDARDS

The designer shall designate/assign no more than 8-10 of these drop sets as workstations from each Zone Box. The remaining drop set Workstations shall be designated as future growth capacity out of each zone box.

Contractor shall fully test and document all Zone box spare drop sets:

- Spare drop set shall be identified on a "per Zone box basis"
- All Zone boxes shall be independently grounded and bonded to the cable tray system.

All spare drop set cables shall be tested per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICI installations standards. Contractor shall comply with any manufacture specific cable installation/connector termination guidelines. See **Appendix A-VII: Zone Box Details**.

A.27.5.2. Wireless: IRM/TWD is responsible for the installation, operations and maintenance of all domestic WiFi requests. WiFi is approved within Department of State facilities however; all installations must undergo a special review process with TWD and other security bureaus. To request WiFi services, please contact TWD customer service (TWDCUSTSERV@state.gov).

A.27.6. Telecommunications Security

Note: Junction boxes shall be installed in the order shown in the drop details with sufficient spacing so that the faceplates do not overlap.

A.27.6.1. Separation Requirements: For secret and below, no physical separation between cables is required with any unclassified systems. This guidance is per DOD Specification NSTISSI 7003, Protected Distribution Systems.

A.27.6.2. Physical Inspection: Classified data wiring may be installed in conduits within walls; sufficient access should be designed within the drywall partition to allow inspection of the entire length of conduit from above. This will require that no blocking or insulation be installed within studs housing classified conduit. Where the underfloor duct is used for short distances from the partition wall to the desk, conduit is not required. The cables can be run together with other services within the same floor duct.

A.27.6.3. Designation of Classified Cabeling and Equipment: A&E/Contractor shall not identify classified computer lines, faxes, or terminals by name. A&E/Contractor shall use generic terms LAN-1, LAN-2, LAN-3, and LAN-4 that will not reveal to the casual observer the function of the device.

A.27.7. Installation of Telecommunication Cables and Associated Hardware

A.27.7.1. The horizontal cables installed shall be in uniform "drop sets," each set to contain the following cable drops:

- (2) LAN-1 Black 4-pair, 100 Ohm, UTP, Category 6 cables
- (1) LAN-3 Blue 4-pair, 100 Ohm, UTP, Category 6 cable
- (1) LAN-2 2-strand, multi-mode, 50/125 OM3 fiber optic cable– Color of the Fiber cable jacket shall be Red

Note: Deviations from this standard "drop set" (installation of additional cables and/or types) shall be consistent with a customer's individual requirements. Designer shall pay particular attention to design areas designated for printers black & white and color, scanners, multi-function copiers, fax machines, and other miscellaneous analog applications with sufficient infrastructure.

A.27.7.2. All copper category cables shall be installed into individual, category matching 48 port RJ45 patch panels. The patch panels shall be terminated in the CER location, mounted in equipment cabinets provided with full rack rail length double sided vertical wire organizers,

installed and mounted on both the front and rear right and left sides. The four copper cables shall be referenced as (2) LAN-1, and (1) LAN-3 which shall be Category 6 UTP, LAN-2, which shall be red jacketed two strand OM3 fiber optic cable.

A.27.7.3. All Category 6 UTP cables shall be terminated in compliance with the Design Guide for Domestic Facilities to meet or exceed ANSI/TIA/EIA T568B termination scheme. Contractor shall comply with any manufacture specific cable installation/jack termination guidelines. Refer to **Appendix A-IV: Installation Best Practices**.

A.27.7.4. LAN-2 network horizontal (distribution) cables shall be 50/125 OM3 fiber optic cables with a red plenum cable jacket and terminated with OM3 rated SC connectors at both ends. Contractor shall comply with any manufacture specific cable installation/connector termination guidelines.

A.27.7.5. All Category 6 UTP copper cables shall be run down from the ceiling in a common conduit. Terminated with Category matching RJ45 jacks at the user end within a common faceplate. The fourth cable (LAN-2), a fiber optic cable, shall be run down from the ceiling in a separate conduit and terminated at the user end in a separate faceplate with OM3 SC multi-mode fiber connectors, with red SC faceplate fiber optic inserts/pass-through. The separation distances between the conduits shall comply with the requirements stated in the NSTISSAM and NSTISSI documents. Contractor shall refer to **Appendix A-VI** and **Appendix A-VII** for typical drop details and installation notes.

A.27.7.5.1 BNET/CATV drop: BNET/CATV drop locations shall be installed using RG-6 Quad-Shielded plenum rated cable. RG-6 cables shall share the same cable tray system as the other copper type cables. BNET/CATV drop cables shall be installed as "home-run" to the nearest CER. BNET/CATV drop cables shall be terminated at the "user-end" into a single gang faceplate using a compression type F-connector termination that has been recommended specifically for use on the installed cable. The contractor shall also provide and install an F-Connector faceplate bulkhead pass-through. BNET/CATV drop cables shall be terminated at the CER using the same compression type F-connector termination at the designated space on the CER plywood. All cables shall be labeled to identify to and from locations using computer generated wrap around labels.

A.27.7.6. All horizontal (distribution) cables shall be provided with spare slack to be stowed as "service loops," typically 18 inches at the user end (neatly stowed above the ceiling and secured off the ceiling tile/grid system) and 3 feet at the CER. In addition, 6 inches of slack shall be provided behind the faceplate to allow the faceplate to be removed from the wall for service after termination. Within the designated CER, spare cable slack can be stored within the cabinet.

A.27.7.7. At each work station location the Category 6 UTP copper cables shall be terminated within a common double gang faceplate. Each individual cable shall be terminated using a category matching RJ45 568B jack.

LAN-1 shall be a Black RJ45 Jack
LAN-3 shall be a Blue RJ45 Jack

The LAN-2 cable shall be provided with a red bezel around its SC fiber optic pass through couplers in a separate faceplate at the user end. The separation between the cables shall comply with the requirements stated in the NSTISSAM and NSTISSI documents.

A.27.7.8. Each of the installed LAN-1, and LAN-3 cables shall be terminated at the CER into a, category matching, preloaded modular 48 port RJ45 patch panel or panels installed within an exclusively dedicated cabinet. (I.e., LAN-1 cabinet, and LAN-3 cabinet)



SECTION A GENERAL STANDARDS

Each LAN-2 cable shall be terminated within the CER into a high-density fiber optic patch panel or panels exclusively dedicated to the LAN-2 network. The LAN-2 patch panel shall be located in an equipment cabinet that shall be used exclusively for LAN-2 terminations and equipment. (I.e., LAN-2 cabinet)

Separation distances from equipment supporting other networks shall comply with the requirements stated in the NSTISSAM and NSTISSI documents.

A.27.7.9. All patch panels shall be provided with cable management "wire managers" installed above and below all installed patch panels. All patch cords shall be arranged in a neat and workmanship like manner utilizing the pre-installed cabinet vertical cable wire managers and the contractor installed horizontal wire managers.

A.27.7.10. As a rule, all horizontal (distribution) cables (copper and fiber) shall be plenum rated. Unless directed by the local authority having jurisdiction (**based on local codes**), that cable running above the finished ceiling must be installed in EMT conduit.

Note: In the event that site conditions have not been made clear, the contractor shall provide and install plenum rated cable.

A.27.7.11. The vertical (backbone) cable system needed to support legacy analog applications shall consist of bundled multi-pair copper Category 5E UTP cables. There shall be at least one cable bundle (50 pair minimum 2x25 pair) per floor served. These cable bundles shall be terminated on rack or wall mounted patch panels that are, at a minimum Category matching. One end shall be located near the PBX switch, and the other in a CER located on the floor served.

CER Location: These cables shall be terminated in a rack mounted 48 port patch panel (mounted within the cabinet using the last 6 rack units, 2-RU Patch Panel, and a 2-RU Wire Organizer mounted above and below the patch panel) , with (1) one cable pair dedicated per patch panel port and terminated onto pins 4 & 5. The violet slate pairs from both (25 pair) cables shall be coiled, with sufficient cable slack, behind the patch panel to be utilized as "spare pairs".

PBX Switch or VOIP location: Cables from each CER shall be terminated onto wall mounted 110-IDC Type termination blocks and 110 cable management trough "with legs". Each cable shall have all pairs terminated per industry standard color code. Cable labels for these cables shall identify the "to and from" locations and include CER room numbers, Floor, and cable pairs 1-50.

Adjacent to the 110-IDC Type blocks detailed above, contractor shall install additional wall mounted 110-IDC Type termination blocks and 110 cable management trough "with legs. Contractor shall install a minimum of (50 pair 2x 25 pair) Category 5E UTP cables, from these wall mounted blocks to a rack mounted 48 port panel or panels with (1) one cable pair dedicated per patch panel port and terminated onto pins 4 & 5. The violet slate pairs from both (25 pair) cables shall be coiled, with sufficient cable slack, behind the patch panel to be utilized as "spare pairs".

A.27.7.12. The vertical (backbone) cable system for data (LAN-1), (LAN-2), and (LAN-3) shall consist of multi-strand OM3 multi-mode 50/125 micron (24 strands minimum) and multi-strand OS2 single-mode (24 strands minimum) fiber optic cables. The LAN-1, LAN-2 and LAN-3 backbone terminations are to be located in separate equipment cabinets. Each network shall be provided with a separate backbone cable bundle. The separation distance between the different network backbone cables shall comply with the requirements stated in the NSTISSAM and NSTISSI documents.

A.27.7.13. All LAN-1, LAN-2, and LAN-3 fiber optic data vertical (backbone) cables shall be terminated using LC connectors at both ends. The LAN-1 connectors shall be contained in patch

panels exclusively dedicated to the LAN-1 network. The LAN-3 connectors shall be contained in patch panels exclusively dedicated to the LAN-3 network. The LAN-2 connectors shall be contained in patch panels exclusively dedicated to the LAN-2 network. The LAN-2 patch panels shall be contained, at both ends, within an equipment cabinet or rack exclusively dedicated to the LAN-2 network.

A.27.7.14. All vertical (backbone) cables shall be riser rated and ARMORED, unless they pass through plenum air spaces shared by personnel, in which case they shall be plenum rated or shall be installed into EMT conduits with EMT steel compression fittings through ceiling plenum, unless otherwise directed by the local authority having jurisdiction **(based on local codes)**.

A.27.7.15. All vertical (backbone) cables shall be properly supported at each floor using split-mesh couplings by "Kellum" or equal. The cables shall not be clustered within the clamps; each cable shall be provided with one clamp per floor.

A.27.7.16. Category 6 UTP cables shall not be installed in such a manner that more than 25 pounds of tension is applied to the cable. Fiber optic cables shall be installed in such a manner that the manufacturers' maximum allowable tension specifications are not exceeded.

Note: All Communication System components shall be installed per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICl installations standards. Contractor shall comply with any manufacture specific cable installation/connector termination guidelines.

A.27.7.17. All proper cable bend radii shall be maintained both while the cables are being installed and when the cables are in place.

Note: All Communication System components shall be installed per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICl installations standards. Contractor shall comply with any manufacture specific cable installation/connector termination guidelines.

A.27.7.18. Cable ties shall not be tightened on any cables in such a manner that the outer jacket is indented or deformed. Cable ties shall be easily movable or rotated by hand. Cable ties installed in plenum areas shall be plenum-rated.

Note: All Communication System components shall be installed per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICl installations standards. Contractor shall comply with any manufacture specific cable installation/connector termination guidelines.

A.27.7.19. This section has been removed.

A.27.7.20. All cables running into equipment cabinets or racks shall be run down from the top of the cabinet and shall not obstruct and/or otherwise impede the full use of front and rear equipment mounting rails to a point near the bottom of the cabinet. The cables shall then be run up into the patch panels from below. This is to create a "drip loop," which will keep moisture from entering the patch panels.

A.27.7.21. All Category 6 UTP cable links shall be installed "straight-through" with no crossovers (transposition of pairs). If crossover is required for a specific application, it shall only take place outside of the basic horizontal (distribution) cabling system (i.e. in special application-specific connector cords, adaptors, etc.). No cabling adaptors, impedance matching devices, etc. shall be installed as part of the basic cabling system. These application specific devices, if required, must be placed outside of the jack at the user end, or the patch panel at the equipment end of the cable link.

SECTION A GENERAL STANDARDS

A.27.7.22. All fiber optic cable links shall be provided with crossovers (reversal of strands within a pair) only in compliance with the standards set forth in the ANSI/TIA/EIA-568-B-3 document. Crossovers shall not be incorporated within the basic link.

A.27.7.23. Patch and equipment cord lengths shall be applicable to the distance of the connection and shall not exceed 5 feet in excess. Contractor shall provide Category matching patch cords. All Patch Cords shall be approved for use by the Cable System manufacture. Patch Cords shall meet and /or exceed any Cable System Manufacture mandated warranty requirements.

Network	Cable Color	Bezel Color	Patch Cord Type	Patch Cord Color
Voice	Black	Black	Category 6 RJ45	Black
LAN1	Black	Black	Category 6 RJ45	Black
LAN2 Workstation	Red	Red	OM3 SC/SC	Red
LAN2 CER	Red	Red	OM3 LC/SC	Red
LAN3	Blue	Blue	Category 6 RJ45	Blue
LAN4	Yellow	Yellow	Category 6 RJ45	Yellow
LAN4	Yellow	Yellow	OM3 LC/LC	Yellow
WIFI/DAS	Green	Green	Category 6A RJ45	Green

Patch Cord Table

A.27.7.24. Once installed, and terminated, all data cables shall be tested to ensure compliance with all appropriate performance parameters established in the Design Guide for Domestic Facilities and shall meet or exceed current testing parameters and guidelines established in the ANSI/TIA/EIA-568-B Documents and their addendums.

Note: All cable links that have been installed/terminated within the CER and within a ceiling mounted Zone Box, (spares) shall be documented and tested Test results for these "spare" cables shall follow the testing requirements in accordance with the Design Guide for Domestic Facilities.

A.27.7.25. All cables shall be labeled with an alphanumeric code system to be agreed upon between the IRM/OPS/ITI/TWD bureau of DOS, the A/E, the network users, and the network-managing group. This system shall indicate the CER or equipment location where the cables originate, the equipment referred to, is the building number, floor, CER, media type, network classification, and a unique number to identify the individual cable. This unique number shall correspond to the patch panel and port number where the cable originates. See **Appendix A-IV: Typical Drop Details and Notes** for labeling illustration.

A.27.7.26. This section has been moved. See section A.27.2. Pathway Component.

A.27.8. Telecommunication Conduit Systems in Ceiling Spaces

A.27.8.1. There shall be no more than 180 degrees of total bends between pull points.

Note: All Communication System components shall be installed per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICI installations standards. Contractor shall comply with any manufacture specific installation guidelines.

A.27.8.2. There shall be no more than 100 feet between pull points (75 feet maximum recommended).

Note: All Communication System components shall be installed per the Design Guide for Domestic

Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICI installations standards. Contractor shall comply with any manufacture specific installation guidelines.

A.27.8.3. The conduit shall be supported or suspended at every 5 feet maximum interval, using hardware intended for that purpose.

Note: All Communication System components shall be installed per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICI installations standards. Contractor shall comply with any manufacture specific installation guidelines.

A.27.8.4. All communications pathway components shall be independently supported and shall not be supported or suspended from other conduits, structures supporting other trades (such as trapezes or trestles supporting steam pipes), ceiling support rods, etc., nor shall other conduits or structures be supported by the telecommunication conduits.

Note: All Communication System components shall be installed per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICI installations standards. Contractor shall comply with any manufacture specific installation guidelines.

A.27.8.5. The bend radius for telecommunication conduits 2 inches and smaller shall be (6) times the conduit diameter, and for conduit above 2 inches, 10 times the conduit diameter.

Note: All Communication System components shall be installed per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICI installations standards. Contractor shall comply with any manufacture specific installation guidelines.

A.27.8.6. The telecommunication conduits shall not change direction at pull points, only with bends (sweeps).

Note: All Communication System components shall be installed per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICI installations standards. Contractor shall comply with any manufacture specific installation guidelines.

A.27.8.7. L-fittings (condulets), T-fittings (condulets), etc. shall not be used in the installation of telecommunication conduits.

Note: All Communication System components shall be installed per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICI installations standards. Contractor shall comply with any manufacture specific installation guidelines.

A.27.8.8. The telecommunication conduits shall be sized so that the maximum number of cables that will be run through each conduit and shall not exceed 40 percent of the internal space of the conduit (fill ratio).

Note: All Communication System components shall be installed per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICI installations standards. Contractor shall comply with any manufacture specific installation guidelines.

A.27.8.9. The telecommunication conduits shall be provided with pull-strings (jet lines) between each adjacent pull-point, not straight through end to end, unless there are no intermediate pull-points.

Note: All Communication System components shall be installed per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICI installations standards. Contractor shall comply with any manufacture specific installation guidelines.

A.27.8.10. Electrical wires, HVAC control services, fire alarm wiring, and security device cables shall not be run in the telecommunication conduits, nor shall they be attached to, draped over or, run within the communications pathways.

Note: All Communication System components shall be installed per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICI installations

SECTION A GENERAL STANDARDS

standards. Contractor shall comply with any manufacture specific installation guidelines.

A.27.8.11. All conduit section ends shall be free of burrs, sharp edges, etc.

Note: All Communication System components shall be installed per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICI installations standards. Contractor shall comply with any manufacture specific installation guidelines.

A.27.8.12. Pull-boxes used with the telecommunication conduits shall be sized according to the specifications set forth in the ANSI/EIA/TIA-569 document and BICI installations standards. Pull-boxes in public spaces shall be lockable.

Note: Contractor shall comply with any manufacture specific cable installation/connector termination guidelines.

A.27.8.13. Telecommunication conduit sections shall be joined with steel compression-type couplings. *Use of "Set-screw type" couplings or die-cast couplings are not permitted.*

Note: All Communication System components shall be installed per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICI installations standards. Contractor shall comply with any manufacture specific installation guidelines.

A.27.8.14. Exposed telecommunication conduit ends shall be equipped with EMT steel compression-type connectors with Insulated Throat and Insulated Metal Grounding Bushings.

Note: Examples shall include, but not be limited to, conduit ends that have been installed to within 12" of the cable tray, (above or below finished ceiling) from system furniture base feeds, from work area outlets, or any through wall/slab EMT sleeves.

All Communication System components shall be installed per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICI installations standards. Contractor shall comply with any manufacture specific installation guidelines.

A.27.8.15. Each drop location shall be provided with two conduit drops: one for LAN-1 cables, and LAN-3 cables, the other for LAN-2 cables. These conduits shall have their lower ends located within the drywall at the termination faceplate position, and their upper ends located approximately 12 inches from the appropriate cable tray. The separation distances between the conduits shall comply with the requirements stated in the NSTISSAM and NSTISSI documents.

Note: All Communication System components shall be installed per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICI installations standards. Contractor shall comply with any manufacture specific installation guidelines.

A.27.8.16. Any conduit or through-wall EMT sleeve penetrations made into or through a fire-resistant building structure, shall have the appropriate UL approved fire-stopping method applied to restore the structure's original fire rating, in accordance with referenced documents and manufacturer's specifications.

Note: The use of Firestop Muffins rather than firestop putty is the preferred fire stop method to be utilized for through wall/slab EMT sleeves and conduits. Firestop putty should be used in areas where the caulking or fire stop putty will not be continually disturbed/removed.

All Communication System components shall be installed per the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICI installations standards. Contractor shall comply with any manufacture specific installation guidelines.

A.27.8.17. All pathway components, **(EMT conduits, EMT through-wall/slab sleeves, cable trays, ladder rack, and Zone Boxes)** that support the Communications System infrastructure shall be viewed as a "System" and properly bonded and grounded, in accordance with the Design Guide for Domestic Facilities and meet or exceed NEC and current published ANSI/EIA/TIA and BICI installations standards.

A.27.8.18. Telecommunication conduits shall not be installed in areas or spaces where they will be subjected to high heat, intense cold, moisture, vibration, or caustic chemicals

A.27.9. Telecommunications Cable Trays in Ceiling Spaces

A.27.9.1. The cable trays shall be installed in such a manner that no obstructions impede the running of cable within the trays. No pipes shall enter the space within the trays.

A.27.9.2. The cable trays shall be installed in such a manner that ease of access to the tray by cable installers is ensured.

A.27.9.3. The cable trays shall be center hung, hand-bendable, ribbed type cable trays of both the "single-pocket" and "double-pocket" varieties specifically intended for supporting telecommunication cables. The tray product shall conform to the standards set forth in the ANSI/TIA/EIA-569 document.

A.27.9.4. The "double-pocket" variety shall be used for LAN-1 and LAN-3 data cables, which shall be installed and equally distributed into both pockets. The "single-pocket" variety shall be used for the LAN-2 cables only.

Note: When roughing cables into the cable tray system, contractor shall evenly distribute installed copper cables utilizing both sides of the "double-pocket" system to avoid overfilling one side causing system contortion

A.27.9.5. The two varieties of trays shall be run parallel to each other, either side by side or over and under.

A.27.9.6. The trays shall be hung with the manufacturers' recommended hardware, and are not to exceed the manufacturers' recommended maximum intervals.

A.27.9.7. A&E shall design and Contractor shall install all pathway components so that when viewed as "system" installed cable will not exceed 90 meters, when tested from CER to work area outlet.

Note: The trays shall be run in a logical manner to provide the shortest practical distance from the cable/conduit drops and the trays.

A.27.9.8. The Cable tray system component shall run to within 18" of the EMT through wall sleeves providing cable access into the CER room.

A.27.9.9. If applicable, the "double-pocket" tray shall be provided with a section running to the point on the perimeter hallway wall nearest to the CER riser closet assigned to the office suite.

A.27.9.10. The "single-pocket" tray shall be provided with a section running to the point on the CAA (Controlled Access Area) perimeter hallway wall nearest to the location of the stubbed-in conduit, which shall be used to convey the LAN-2 fiber optic cables in the non-CAA corridor(s).

A.27.9.11. Contractor shall design and install a "ladder rack" cable pathway support system for use within each CER/ER. This pathway shall support all TWD designated cables from point of entry into the CER (EMT through-wall /slab sleeves) and continue to each of the designated cable termination cabinets.

Contractor shall install horizontal ladder rack sections that connect the CER walls front to back and side to side providing a cable pathway above and connecting each row of cabinets.

Contractor shall install vertical ladder rack with stand-offs above any through slab cores providing

SECTION A GENERAL STANDARDS

vertical cable support.

A.27.9.12. The cable trays shall not be used to support electrical wires, HVAC control services, fire alarm wiring or other non-telecommunication wiring.

A.27.9.13. All cable trays that penetrate and/or pass through, fire-resistant building structures, openings shall be framed out, allowing pathway to be utilized in the future without having to remove drywall. Openings shall have the appropriate, re-enterable, UL approved fire-stopping method applied to restore the structure's original fire rating, in accordance with referenced documents and manufacturer's specifications. The use of Firestop Pillows and /or Firestop Bricks are considered the preferred Firestop method for this application.

A.27.9.14. Cable tray pathway components shall meet and/or exceed the bonding and grounding requirements outlined within the ANSI/TIA-607-C standard and the illustrated examples included within the Design Guide for Domestic Facilities.

A.27.9.15. Cable trays shall not be installed in areas or spaces where they will be subjected to high heat, intense cold, moisture, vibration, or caustic chemicals.

A.27.9.16. A&E shall establish installation elevations for all above finished ceiling trade work to facilitate an obstruction free transition from the cable tray to through-wall EMT sleeves entering the CER. The contractor designing the cable tray path shall coordinate the design with the architectural plans to insure that no conflict exists with the HVAC duct layout and any other ceiling obstructions in determining the tray path. The contractor shall provide a drawing of the proposed cable tray path to IRM/OPS/ITI/TWD of DOS and to the other disciplines involved with the project.

A.27.10. Testing of Category 6 UTP and Fiber Optic Cables

A.27.10.1. Category 6 UTP cables shall be subjected to industry-recognized tests to determine the following characteristics of each cable after installation. The data derived from these tests shall be stored in both a "pass/fail" format and a format showing the actual numerical values determined for each cable. This information shall be provided to the DOS customer, as a PDF document, as soon as possible after the testing procedures are completed.

Note: If Zone Boxes are utilized in the design, cable contractor shall provide complete test result, documentation for any/all any spare cables terminated within the Zone Box.

- (1) Wire Map
- (2) Length
- (3) Near End Cross talk (NEXT)
- (4) Attenuation
- (5) Return Loss
- (6) Propagation Delay
- (7) Delay Skew
- (8) Attenuation to Cross Talk Ratio (ACR)
- (9) Power Sum Attenuation to Cross Talk Ratio (PSACR)
- (10) Power Sum Near End Cross Talk (PSNEXT)
- (11) Equal Level Far End Cross Talk (ELFEXT)
- (12) Power Sum Equal Level Far End Cross Talk (PSELFEXT)

A.27.10.2. Fiber optic cables shall be subjected to the industry-recognized test to determine the signal attenuation (decibel loss) of each cable after installation. This shall be accomplished through the use of a light source of the proper wavelength and an optical power meter. The data derived from these tests shall be recorded in both a "pass/fail" format and a format showing the actual numerical value determined for each cable. This information shall be provided to the DOS customer, as a PDF document, as soon as possible after the testing procedures are completed.

A.27.10.3. Required Project Deliverables: Contractor shall provide RPM/TWD with the following documentation prior to Government final project acceptance:

- Contractor shall provide the Test results as outlined in section 27.10.1
- Final As-Built floor plans shall be provided on a "per project phase basis", and uploaded to the project ProjNet site and /or the Business Office Folder.
- The final As-Built floor plans shall be provided in CAD.
- The As-Built floor plans shall clearly identify the following information:
 - All cable drop locations and ID's
 - All cable pathways, and cable support pathways
 - Cable tray pathways
 - All Zone Box locations
 - All CER locations

Contractor shall provide cable cut sheets in an EXCEL spreadsheet format. Cut sheets shall be provided on a "per project phase basis," and uploaded to the project ProjNet site and /or the Business Office Folder. Cut sheet shall identify all of the following:

Cable drops:

- Faceplate location on the As-Built
- Termination location
- Network identifier
- Zone Box Spares: Shall be listed per ZB

Backbone Fiber Optic and Copper Tie cables:

- Shall identify the termination locations:
 - Cabinet and/or Rack location ID for both ends
 - Patch Panel rack unit for both ends
 - Termination type for both ends
 - Cable type
- Network identifier

A.27.11. Location, Construction, and Furnishing of Communications Equipment Rooms (CER)

This section has been moved. See section A.27.4. Communications Equipment Rooms (CER).

A.27.12. Location of Communications Equipment Rooms (CER)

A.27.12.1. CERs shall not be located below the highest possible natural flood level.

A.27.12.2. CERs shall not be placed where they will be subject to internal water hazards, such as below or adjacent to kitchens, rest rooms, drainpipes, etc. Where CER room contains a fire alarm control unit, the room must be of 2-hour fire resistive construction minimum.

A.27.12.3. CERs shall only be located where the minimum clear ceiling height is at least 9 feet.

A.27.12.4. CERs shall only be placed where the minimum floor load rating is 50 lbf/ft².

A.27.12.5. There shall be a minimum of one CER per floor. More CER's may be required depending on the size of the floor and the CER locations. If the building areas being served involve more than one floor, then the CER's shall be placed such that they stack vertically.

A.27.13. Size of Communications Equipment Rooms (CER)

A.27.13.1. The minimum internal dimensions of any CER shall be 10 feet by 15 feet. Other dimensions that also add up to 150 sq. ft. shall not be deemed acceptable.

SECTION A GENERAL STANDARDS

A.27.13.2. Each CER shall be large enough to allow the installation of at least one equipment cabinet for each network. The cabinets shall be installed in a single row. A walkway with a minimum width of 36 inches shall be provided to allow access to both the front and rear of the row of cabinets.

A.27.13.3. CER's shall be large enough to allow a floor mounted air-conditioning unit.

A.27.13.4. CER's shall be large enough to allow for the placement of primary and/or redundant service panels with the required clearances mandated by the NEC.

A.27.14. Environments in Communications Equipment Rooms (CER)

A.27.14.1. CER's shall be provided with power and air conditioning on a 24 hour per day, 7-day per week basis.

Note: If there is, an issue with power or air conditioning; FMS and TWD Operational Government shall be notified within 24 hours via email.

A.27.14.2. A/E shall design lighting functionality to achieve an even distribution of light throughout the CER space. Design elements such as cabinet placement, ladder rack cable pathway routing, and other potential obstructions shall be compensated within the final lighting design. Emergency lighting shall be provided in the CER. The light switches shall not be of the dimmer type.

The CER shall be equipped with sufficient lighting to provide 50 foot-candles of illumination measured 3 feet above the floor throughout the room. Lights shall be mounted as high as possible. Emergency lighting shall be provided in the ER. The light switches shall not be of the dimmer type.

A.27.14.3. CER's shall be equipped with sufficient air-conditioning and humidification to provide a temperature set point of 74 degrees Fahrenheit (26 degrees Celsius) and a humidity range of 40% to 50% relative humidity.

A.27.14.4. CER's shall be provided with sufficient ventilation to allow for one air change per hour.

A.27.15. Furnishing of Communications Equipment Rooms (CER)

A.27.15.1. CER's shall be provided with an entrance of at least 36 inches in width. This entrance shall have a door opening inward, with no sill. If the door is composed of two leaves, there shall be no center post. CER door lock requirements will be specified by DS/DME when they provide guidance on an individual project security design and should meet or exceed DoD NSTISSI, or current published standard.

A.27.15.2. CER's shall not be provided with a false or suspended ceiling.

A.27.15.3. CER's shall not have any ducts, conduits, pipes, panels, devices or other items placed within them or running through them, which are not directly in support of the function of the CER.
Note: Communication Equipment rooms shall only contain TWD approved equipment.

A.27.15.4. CER's shall be provided with ¾ inch plywood panels mounted firmly on all walls. These panels shall extend from floor level to 8 feet above the finished floor. These plywood panels shall be a minimum of AC grade, with the C side mounted against the wall. The plywood shall be fire-resistant, void-free and painted white with fire-resistant paint. The stamps indicating the plywood's fire-resistance shall not be painted over.

A.27.15.5. CER's shall be provided with floor mounted air-conditioning or air-handling units. Ceiling mounted units shall not be installed within the CER's. Water supply and return piping shall not be

(b) (6)

run above the locations of equipment cabinets or wall-mounted equipment in newly renovated spaces.

Note: Standalone temporary AC systems shall not be used as a permanent substitute.

A.27.15.6. CER's shall be provided with a telecommunications grounding buss bar connected to a telecommunications grounding backbone/earth ground. The installation methods, the sizing of the buss bar and the backbone cable and all other elements shall be in accordance with the J-STD-607-C, EIA/TIA BICSI standards documentation.

Contractor shall label each installed ground wire identifying the "From & To" locations at both ends. (Computer generated and printed wrap around type labels)

Contractor shall label the grounding bus bar with the grounding source location in conjunction with BICSI and EIA/TIA 607-C Standards.

Contractor shall only utilize compression type ground lugs for all field installed ground wire connections. Contractor shall make all compression lug connections with the appropriately sized compression tool. All Compression ground lugs shall be UL Listed 2-hole type and sized to fit the specific ground wire AWG. Contractor shall bond and ground each cabinet using factory installed ground lugs.

Contractor shall install stranded # 6 AWG (133 –Strand minimum) copper ground cable with a green cable jacket when installing ground connections to pathway components, equipment cabinets or racks.

Grounding Best Practices:

Contractor shall properly prepare areas, such as ladder rack, to be grounded by removing any paint in the general area to bare metal, making certain to remove enough of the paint, in the area surrounding the ground lug, to enable inspection.

All ground wire shall be fully inserted into the grounding lug.

The ground cable green sheathing shall be flush with the top of the grounding lug and not expose any of the copper strands of the ground cable.

A.27.15.7. A/E Designer shall design CER Power distribution to avoid creating a single point of system failure. Two CER Service panels shall be designed with one providing commercial power. The other panel will feed from the building UPS or generator providing TWD designated equipment with 2-6 hours of back up run time.

Installed circuits that specifically support TWD cabinets and/or equipment shall feed from each of the two panels.

TWD will require a combination of the following power outlet combinations to be installed above each cabinet: L6-30R, L14-30R, L5-20R, and L6-20R **(30 AMP 250 VAC 3-wire dedicated circuits, 30 AMP 125/250 VAC 4-wire dedicated circuits and 20 AMP 120 VAC 3-wire dedicated circuits).**

A/E Designer is **required** to coordinate with TWD PM to obtain specific circuit requirements on a per project basis. The actual power requirements shall be determined by the operational requirements of the users.

A.27.15.8. Conduits run on wall surfaces from the ceiling down to the utility receptacle locations shall only descend in corners and be run horizontally approximately 15 inches above the finished floor to the receptacles to avoid obstructing space for wall mounted equipment.

A.27.15.9. CER's shall have the floor and ceiling sealed to prevent dust propagation. The floor shall

SECTION A GENERAL STANDARDS

be covered with fire-resistant, anti-static tiles. The ceiling shall be painted white.

A.27.15.10. Cables that run vertically between CER's shall have the upper CER with a minimum of three 4-1/2 inch core bores in its lower deck. Core bores shall be placed as close to the planned voice plywood backboard location as possible, without being directly under the fire retardant treated plywood backboard. More core bores may be necessary depending upon the user's operational requirements. If a slot in the floor is use instead of core bores, the slot shall be provided with a 1-inch high sleeve or dam wall around its perimeter. All cores shall be fitted with EMT sleeves with compression EMT steel compression-type connectors with Insulated Throat and Insulated Metal Grounding Bushings.

A.27.15.11. CER's shall be equipped with wet sprinklers unless the area is subject to freezing, in which case dry type sprinkler systems may be used. The sprinkler heads shall be fitted with protective cages and inspected for leaks and future potential failures semiannually.

Note: Contractor shall report leaks immediately to the proper Building Representative and this shall include IRM TWD Government Operations.

A.27.16. Location, Construction, and Furnishing of Equipment Rooms (ER)

An Equipment Room is a special-purpose room that provides space and maintains a suitable operating environment for large communications and/or computer equipment. Equipment Rooms differ from Communications Equipment Rooms in that Equipment Rooms are generally considered to serve a building or a campus, whereas Communications Equipment Rooms serve a floor area of a building. Therefore, Equipment Rooms may be connected to backbone pathways that run both within and between buildings.

A.27.17. Location of Equipment Rooms (ER)

A.27.17.1. ERs shall not be located below the highest possible natural flood level.

A.27.17.2. ERs shall not be placed where they will be subject to internal water hazards, such as below or adjacent to kitchens, bathrooms drain pipes, etc.

A.27.17.3. ERs shall only be located where the minimum clear ceiling height is at least 9 feet. If a raised floor is to be used, the clear ceiling height shall be measured from the top of the planned raised floor tiles. If the ER is to be outfitted with a raised floor the designer shall design pathways for cabinet power utilizing the area under the raised floor. Power shall be routed to each Individual cabinet to a 6 in x 6 in grommented floor tile cut one per cabinet (by the floor installer).

A.27.17.4. ERs shall only be placed where the minimum floor load rating is 150lb/ft². ER's which will contain telephone switching equipment shall only be placed where the upper deck is of sufficient strength and composition such that a 500 lb point load every 5 feet in both axis can be suspended from it.

A.27.18. Size of Equipment Rooms (ER)

A.27.18.1. The ER shall be large enough to allow the installation of at least two equipment cabinets for each network, as well as any required voice switching equipment, with a minimum of 42 inches of space between rows. A walkway with a minimum width of 36 inches shall be provided to allow access to both the front and rear of the rows of cabinets. The actual number of equipment cabinets, and therefore the size of the ER, shall be determined by the operational requirements of the users.

Contractor shall design and install a horizontal and vertical cable "ladder rack" pathway system.

Horizontal running above and connecting to each row of cabinets.

This pathway shall also provide a horizontal ladder rack connection installed just below the through wall EMT sleeves at the point of cable entry. Vertical ladder rack shall be installed with standoff brackets just above any through slab cores.

A.27.18.2. The ER shall be large enough to allow the installation of floor mounted air-conditioning units.

A.27.18.3. The ER shall be large enough to allow the placement of all required circuit panels with the required clearances mandated by the NEC.

A.27.19. Environments in Equipment Rooms (ER)

A.27.19.1. The ER shall be provided with power and air conditioning on a 24 hours per day, 7 days per week basis.

A.27.19.2. The ER shall be provided with an Uninterruptible Power Supply (UPS) system and emergency power. UPS design shall be reviewed by DESD fire protection engineer early with in the design development process. Design, configure and install electrical power cabling to terminate in separate circuit breaker panels. E.g. 20 amp in one panel and 30 amp in the second panel. At no time should all receptacles be terminated or designed to terminate in one (1) circuit breaker panel. The Design shall be NSPoF Design (No Single Point of Failure).

A.27.19.3. A/E shall design lighting functionality to achieve an even distribution of light throughout the ER space. Design elements such as cabinet placement, ladder rack cable pathway routing, and other potential obstructions shall be compensated for within the final lighting design. The ER shall be equipped with sufficient lighting to provide 50 foot-candles of illumination measured 3 feet above the floor throughout the room. Lights shall be mounted as high as possible. Emergency lighting shall be provided in the ER. The light switches shall not be of the dimmer type.

A.27.19.4. The ER shall be equipped with sufficient air-conditioning and humidification to provide a temperature set point of 74 degrees Fahrenheit (26 degrees Celsius) and a humidity range of 40% to 50% relative humidity.

A.27.19.5. The ER shall be provided with sufficient ventilation to allow for one air change per hour. Where UPS equipment is installed, the ventilation requirements shall be reviewed by the mechanical and fire protection engineering disciplines.

A.27.20. Furnishing of Equipment Rooms (ER)

A.27.20.1. The ER shall be provided with an entrance of at least 36 inches in width. This entrance shall have a door opening outward, with no sill. If the door is composed of two leaves, there shall be no center post. If a raised floor is to be installed, a ramp, not to exceed a rise of 1 over 12, is to be provided. If a second entrance or fire exit is required and the presence of a raised floor makes a second ramp necessary, then the space required for this ramp will be provided.

A.27.20.2. The ER shall not be provided with a false or suspended ceiling.

A.27.20.3. The ER shall not have any ducts, conduits, pipes, panels, devices or other items placed within them or running through them, which are not directly in support of the function of the ER.

A.27.20.4. If there is to be wall mounted equipment (such as voice blocks) in the ER, then the ER shall be provided with ¾ inch plywood panels mounted firmly on the wall at those locations. These

(b) (6)



SECTION A GENERAL STANDARDS

panels shall extend from floor level to 8 feet above the finished or raised floor. These plywood panels shall be a minimum of AC grade, with the C side mounted against the wall. The plywood shall be fire-resistant, void-free and painted white with fire-resistant paint. The stamps indicating the plywood's fire-resistance shall not be painted over.

A.27.20.5. The ER shall be provided with floor mounted air-conditioning or air-handling units. Ceiling mounted units shall not be installed within the ER. Water supply and return piping shall not be run above the locations of equipment cabinets or wall-mounted equipment.

Note: Standalone temporary AC systems shall not be used as a permanent substitute.

A.27.20.6. ER's shall be provided with a telecommunications grounding buss bar connected to a telecommunications grounding backbone/earth ground. The installation methods, the sizing of the buss bar and the backbone cable and all other elements shall be in accordance with the J-STD-607-C, EIA/TIA BICSI standards documentation. If a raised floor is installed, then it shall be provided with a signal reference grid bonded to this buss bar.

Contractor shall label each installed ground wire identifying the "From & To" locations at both ends. (Computer generated and printed wrap around type labels)

Contractor shall label the grounding bus bar with the grounding source location in conjunction with BICSI and EIA/TIA 607-C Standards.

Contractor shall only utilize compression type ground lugs for all field installed ground wire connections. Contractor shall make all compression lug connections with the appropriately sized compression tool. All Compression ground lugs shall be UL Listed 2-hole type and sized to fit the specific ground wire AWG. Contractor shall bond and ground each cabinet using factory installed ground lugs.

Contractor shall install stranded # 6 AWG (133 -Strand minimum) copper ground cable with a green cable jacket when installing ground connections to pathway components, equipment cabinets or racks.

Grounding Best Practices:

Contractor shall properly prepare areas, such as ladder rack, to be grounded by removing any paint in the general area to bare metal, making certain to remove enough of the paint, in the area surrounding the ground lug, to enable inspection.

All ground wire shall be fully inserted into the grounding lug.

The ground cable green sheathing shall be flush with the top of the grounding lug and not expose any of the copper strands of the ground cable.

A.27.20.7. A/E Designer shall design ER Power distribution to avoid creating a single point of system failure. Two ER Service panels shall be designed with one providing commercial power the other panel will feed from the building generator and provide TWD designated equipment with 2-6 hours of back up run time.

Installed circuits that specifically support TWD cabinets and/or equipment shall feed from each of the two panels.

TWD will require a combination of the following power outlet combinations to be installed above each cabinet: L6-30R, L14-30R, L5-20R, and L6-20R **(30 AMP and 20 AMP). (30 AMP 250 VAC 3-wire dedicated circuits, 30 AMP 125/250 VAC 4-wire dedicated circuits and 20 AMP 120 VAC 3-wire dedicated circuits).**

A&E Designer is **required** to coordinate with TWD PM to obtain specific circuit requirements on

(b) (6)

a per project basis. The actual power requirements shall be determined by the operational requirements of the users

A.27.20.8. Conduits run on wall surfaces from the ceiling down to the utility receptacle locations shall only descend in corners and be run horizontally approximately 15 inches above the finished floor to the receptacles to avoid obstructing space for wall mounted equipment.

A.27.20.9. The ER shall have the floor and ceiling sealed to prevent dust infiltration. If a raised floor is not used, the floor shall be covered with fire-resistant, anti-static tiles. The ceiling shall be painted white.

A.27.20.10. If cables are to be run vertically down out of the ER, then the ER shall be provided with core bores or slots in its lower deck. If a slot in the floor is to be used instead of core bores, the slot shall be provided with a 1 inch high sleeve or dam wall around its perimeter. The number and size of the core bores or slots shall be determined by the cable plant design, which in turn, shall be determined by the user's operational requirements.

A.27.20.11. ERs shall be equipped with wet sprinklers unless the area is subject to freezing, in which case dry type sprinkler systems may be used. The sprinkler heads shall be fitted with protective cages.

A.27.21. Audio / Video (A/V) Conference Room Design

Conference room design elements shall include but not be limited to the following. All supporting exhibits and product data sheets referenced in this section are provided separately in Projnet, RPM Portal/Collection Area for Standards and Guidelines/DOS Standards and Guidelines/Audio-Visual Exhibits A-F, by Real Property Management (RPM).

A.27.21.1. Lighting Considerations:

1. A color-rendering index (CRI) of 80 or better is recommended.
2. Indirect diffused LED is preferred over fluorescents; however no mixing of the two should be done in a room because their color profiles differ.
3. Illuminating the surrounding walls should be at a minimum as would only make the faces of room participants appear darker.
4. Rooms with windows must be capable of reducing sunlight to a comfortable level.
5. Dimmers shall be incorporated for making lighting adjustments
6. Do not use ceiling lighting that goes directly down the center of a conference room table, this can prevent proper location of ceiling microphones.
7. Location of ceiling lighting needs to take in consideration if room will also have ceiling speakers and ceiling microphones, which usually need to be consistently spaced from front to rear of room with respect to planned conference table location.
 - a. Ceiling microphones are normally distributed equally down the center of the location of where the conference table would be. The number of ceiling microphones would depend on the length of the table, generally one every 5-6 feet.
 - b. Ceiling speakers are normally distributed in pairs with one on each side of the planned location of the conference room table, generally every 8 feet.

A.27.21.2. Wall Color Considerations:

1. Neutral gray colors on walls and tables are recommended to improve color appearance.
2. Avoid completely white walls or tables, a color with reflection value (LRV) of 50 percent is recommended.

A.27.21.3. Acoustic Considerations: shall include and not be limited to the following:

1. Sound absorption:

a per project basis. The actual power requirements shall be determined by the operational requirements of the users

A.27.20.8. Conduits run on wall surfaces from the ceiling down to the utility receptacle locations shall only descend in corners and be run horizontally approximately 15 inches above the finished floor to the receptacles to avoid obstructing space for wall mounted equipment.

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2. Avoid completely white walls or tables, a color with reflection value (LRV) of 50 percent is recommended.

A.27.21.3. Acoustic Considerations: shall include and not be limited to the following:

1. Sound absorption:

SECTION A GENERAL STANDARDS

a. Acoustic measures, to diffuse sound and reduce flutter echo, may include:

1. Adding specially designed acoustic curtains on windows.
2. Adding sound-absorptive panels in the ceiling.
3. Hanging acoustic wall panels.
4. Carpets on the floor.

A.27.21.4. Microphone Considerations:

1. Ceiling microphones shall be installed for larger rooms.
2. Tabletop microphones shall be used for smaller rooms.
 - a. Provides further justification for core drill under table.
 - b. Generally located down the center of the table, approximately every 4 feet.

A.27.21.5. Core Drill Considerations:

1. Shall be designed providing sufficient conduit capacity to meet current and future AV, voice, and data cables.
2. Used for providing pathway for A/V cables (Data/power/USB, etc.) from conference room table to where main A/V components will be located (Millwork, rack room, credenza, etc.).
3. A core drill pathway is generally installed in one of two ways:
 - a. Conduit run from under table to side wall and then up wall to above ceiling tile for routing to other conduits.
 - b. Conduit run from under table to sidewall where millwork/cabinet/credenza or rack room will be located.

A.27.21.6. Floor Box Considerations:

1. For rooms with core drills, specialized floor boxes shall be installed to allow for power, data & A/V connectivity.
 - a. **See Exhibit A: Floor Box Samples**

A.27.21.7. In-Wall Conduit/Pathway Considerations:

1. In-wall conduit pathways are generally installed in one of two ways:
 - a. Conduit shall be installed 18" above floor on wall where AV equipment will be located to above ceiling tile for routing to other conduits.
 - b. Dedicated conduit runs, shall be installed, 18" above floor on wall where AV equipment will be located to display(s), above ceiling tiles for speakers and microphones and/or core drill under conference room table location.
 - c. Minimum conduit diameter should be 1.5 inches.
 - d. All conduits (dedicated for AV use) shall be fitted with a protective grommet.

A.27.21.8. In-Wall Storage Boxes

1. Shall be located behind each planned wall-mount display.
2. Provides recessed space for routing excess cables and providing power to wall mounted electronics
3. Recommended product:
 - a. Chief PAC526FBP4 with isolated ground, 4-receptacle outlet featuring non-sacrificial multi-stage filtration and surge protection.
 - b. **See Exhibit B: In-Wall Box with Power - Sample**

A.27.21.9. Wall Reinforcement Considerations for Wall Mounted Displays:

1. In-wall reinforcement on front wall of room would generally consist of a 3' X 4' one-inch fire rated plywood, centered on front wall. Space should include in-wall storage box (see above).
2. Specific wall location of reinforcement shall be dependent on expected size of display with assumption bottom of display would be either 48" to allow for camera mounting below display, or 32" for camera mounting above display.

(b) (6)

3. In-wall reinforcement and in-wall storage box shall also be included on centered side wall to allow for optional secondary interactive display installation.

A.27.21.10. Ceiling Tile Considerations:

1. Ceiling tiles shall be standard 2x2, this allows for installation of drop-in ceiling tile speakers.
2. The ceiling is recommended to have an absorption factor ≥ 0.9 in the octave bands 125-4000 [Hz]. This will normally require a mineral wool ceiling of good quality.
3. Minimum spacing requirements between ceiling tiles (false ceiling) and actual ceiling infrastructure to allow for installations of ceiling speakers should be minimum of 6 inches to allow for low profile ceiling speakers

a. See Exhibits C & D: Low Profile Ceiling Speakers and 2-Way Ceiling Mount Loud Speakers

A.27.21.11. Data Drop Considerations:

1. For maximum flexibility, conference rooms should have the following types of data drops:
 - a. Two LAN 1 (for PC and VTC/codec)
 - b. Two LAN 2 (for PC and VTC/codec)
 - c. One LAN 3 for DIN or DEVNET
 - d. One for SIP Phone Line
2. If room will include millwork where AV components will be installed, all drops should be inside of millwork where AV racks will be located.
3. If room will include credenza where AV components, will be installed, all drops should be located 18" above floor on wall where such furniture will be located.

A.27.21.12. Power Outlet Considerations:

1. Core drill under table include minimum 1 gang plate for powered devices.
2. 2 Gang outlet 18" above floor on wall where AV equipment will be located.

A.27.21.13. Millwork Considerations:

1. When millwork cabinets will be installed, as part of the infrastructure for housing A/V equipment, they must include ventilation slots either above or below cabinet.
2. When using millwork cabinets for A/V equipment, installation of pull out and rotate equipment racks should be included for standardizing A/V installations.

a. See Exhibit E: Pull-out & Rotate Rack Sample

A.27.22. Computer Lab-Training / Op Center Room Design

Computer Lab-Training/Op Center Room design elements shall include considerations as listed for a conference room, in addition to the following. All supporting exhibits and product data sheets referenced in this section are provided separately in Projnet, RPM Portal/Collection Area for Standards and Guidelines/DOS Standards and Guidelines/Audio-Visual Exhibits A-F, by Real Property Management (RPM).

Floor Considerations:

1. For providing maximum flexibility in room arrangement for handling power and data cable management requirements for PC stations, individual carpet tiles shall be used.

a. See Exhibit F: Raised Floor Tile Sample

A.28. SECURITY

A.28.1. Domestic Security Guidelines

DS guidelines for domestic DOS space including Strong Rooms, CERs, and Conference Rooms are included in the Physical Security Standards for Department of State Domestic Occupied Space dated April 27, 2017. The Physical Security Standards are provided as a separate document. DS/PSP/FSD will determine all applications of mitigations detailed in the security project file located on Projnet/RPM

SECTION A GENERAL STANDARDS

Portal/Collection Area for Standards and Guidelines/DOS Standards and Guidelines. Additionally, DS/PSP/FSD is the sole authority to approve any deviations or modifications to all details within the security file.

A.28.2. Requirements for Access Control

DS guidelines for access control are included in a memorandum from DS, dated October 6, 2003 (Subject: Access Control Systems Guidelines). The Access Control Systems Guidelines is provided as a separate document.

A.28.3. Security Door Rough-In Heights and Conduit Pathways Application details, typical

A.28.3.1. The A/E shall include DS/FSD/DDB drawings as part of the Construction Drawing Documents.

A.28.3.2. To reference these drawings the A/E shall provide a schedule.

A.28.3.3. Information to populate the schedule shall be provided by the Diplomatic Security Specialist assigned to the project prior to final bid set issuance.

A.28.3.4. Upon request, the A/E shall receive AutoCAD drawing files to use in the Construction Drawing Documents.

Note: Door details reside on ProjNet. Refer to ProjNet/RPM Portal/ Collection Area for Standards and Guidelines/DOS-Standards and Guidelines, for most current details. Contact Project Manager for access.

A.28.4. Section 01541 - Security Regulations

Section 01541 of the construction specifications is included in the Contract Documents and defines the Security Regulations for each project. This section shall be referred to for security issues such as building access, escort requirements, and contractor deliveries.

A.28.5. Requirements for Classification of Materials

The DS Security Classification Guide establishes uniform procedures for the classification and/or control of national security (classified) information relating to the architecture, engineering, and construction of domestic DOS projects. The DS guidelines for security classification are provided as a separate document.

(b) (6)



SECTION B HARRY S TRUMAN
BUILDING STANDARDS

(b) (6)

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B.1. GENERAL REQUIREMENTS

B.1.1. Purpose of This Section

This section provides DOS personnel and Architectural/Engineering firms with guidance on typical building standards and related information (indexed to the CSI MasterFormat divisions) for the preparation of construction documents for renovations within the HST Building. The intent is to provide uniformity to the building for aesthetic and maintenance purposes. For example, DOS has standardized on a specific 2'x2' ceiling tile to lower maintenance and stocking costs.

The intent is not to inhibit design creativity or to address code requirements. Code requirements will be applied to projects by the A/E (designer of record). These standards are to be used in a practical, case-by-case manner. E.g., if a section of a 2'x4' ceiling grid is to be replaced within an existing larger area of 2'x4' tiles, aesthetically a 2'x4' grid should be installed to maintain uniformity, as opposed to the building standard 2'x2' grid.

Note: Any deviation from these standards must be submitted for approval to A/OPR/RPM and shall include a compelling justification for any changes.

B.1.2. Changes to This Document

Recommended changes to this document shall be provided to the Design and Construction Chief, A/OPR/RPM, (202-647-0618; Fax 647-4769). Proposed changes will be submitted to the appropriate disciplines.

B.1.3. Prototypical Systems Furniture Procurement Documents

Where required, upon the approval of final space plans, the A/E shall prepare documents to be used for the procurement of systems furniture. Specific detail regarding the requirements of the systems (i.e., overhead storage, drawers, binder bins, etc.) shall be provided. If manufacturers are listed, a minimum of three shall be provided that can meet the contract requirements. A cost estimate shall be provided. For system walls that attach to the ceiling grid, a spacer shall be used to fill the gap created by the revealed edge tile. The routing of ceiling tiles shall not be allowed. To reduce coordination problems, it is strongly recommended that standard vendor fabrics be used. The use of Customer's Own Material (COM) is not allowed.

B.1.4. Above Standard Mechanical and Electrical Maintenance Costs

Generally, the requesting organizational unit will be responsible for funding additional maintenance and operation costs of new above-standard electrical and mechanical equipment (i.e. air conditioning units and electrical transformers, UPS, etc.) to serve a new computer room. For more information, contact A/OPR/FMS.

B.1.5. Documentation made available by Real Property Management (RPM)

Real Property Management (RPM) has the following documentation available: digitized microfiche original building bid set drawings in electronic format, CAD base building drawings, CAD mechanical, diagrammatic lighting, under floor duct drawings, and environmental report. These will be provided for the A/E's use. RPM has determined that the existing CAD files have discrepancies and vary from existing conditions. The A/E must verify all information before proceeding.

B.1.6. Limitations on Work Hours

B.1.6.1. Noise-producing activities (core drilling, floor and ceiling shooting, grinding, etc.) and HAZMAT removal shall be accomplished during non-work hours (1800-0600 weekdays, all day weekends), unless otherwise specified. At all other times, the construction contractor shall make reasonable efforts to limit noise.



SECTION B HST BUILDING STANDARDS

B.1.6.2. The contractor shall maintain good house-keeping practices to keep the work site, along with adjacent corridors, clean and free from dust. At a minimum, the contractor shall sweep work areas with sweeping compound daily. Adhesive-coated dust mats shall be used at all work site entrances.

B.1.6.3. If the contractor's work sequencing requires installing carpet before all construction activities are complete, the contractor shall install carpet protection film (such as Carpet Shield by Surface Shields, Inc.) on the carpet.

B.1.7. Contractor Coordination Issues

B.1.7.1. Contractor may use existing open-top dumpsters and is responsible for pay pull fees.

B.1.7.2. Scheduling of the loading dock: Schedule with FMS.

B.1.7.3. Truck limitation of the HST Building loading dock is 12' x 24': No tractor-trailer can enter the 21st Street drive.

B.1.7.4. Wheeled carts: All wheeled carts used on renovation projects shall have pneumatic tires to reduce the damage to the corridor floors.

B.1.8. Room Numbering Guidance

B.1.8.1. Rooms are generally numbered using a standard four digit numbering scheme. (e.g., 1102, 2337, 5246)

B.1.8.2. Room numbering scheme contains floor, corridor, and room number. For example, floor 1, corridor 3, room 45 will create room number 1345.

B.1.8.3. Room numbers should follow the existing numbering scheme as closely as possible. One side of the corridor should have odd-numbers and the opposite side should have even-numbers. Numbering should also follow existing ascending order from West to East (23rd Street to 21st Street) and South to North (C Street to D Street).

B.1.8.4. Sub-Rooms within Rooms: Rooms are identified as having one entrance and are generally numbered using the 4-digit standard (i.e., 1345). Depending on the area layout, rooms inside of a large suite that has more than one entrance may or may not be numbered using the sub-room standard. Rooms within a Room (sub-rooms) are classified as having three or more permanent or semi-permanent floor to ceiling walls. Sub-rooms are numbered with a two digit numbering scheme (01, 02, 03) beginning with the room closest to the main entrance of the suite and proceeding in a clockwise direction.

B.1.8.5. Cubicles: Cubicles within rooms or sub-rooms should not be numbered. However, if necessary, cubicles should be numbered with a two digit numbering scheme in sequential order after sub-rooms. If number of sub-rooms and cubicles is to exceed 99, then cubicles should be numbered with a C followed by a two digit numbering scheme (C01, C02, C03) beginning with the room closest to the main entrance of the suite and proceeding in a clockwise direction.

B.1.9. Marshall Wing

Due to the historic nature of the Marshall Wing constructed in 1937 – 1939, originally known as the "War Building" as well as "Old State," the building has some unique features. Most of these consist of historic finishes and other related items. For the most part these features were either retained and/or replicated during the Phase 1A renovation of the wing. Within the sub-sections that follow, where such unique features exist for the Marshall Wing, they are separated and identified accordingly through reference

to the contract documents and specifications for the Phase 1A renovation – Amendment No 2: 13 August 2003. Contact the FMS Information Resource Center for MS Word document. In addition, any work that impacts historic features and components will require coordination and approval of the DC State Historic Preservation Officer.

B.2. EXISTING CONDITIONS

B.2.1. Building Description

The Harry S. Truman (HST) Building serves as the Headquarters for the Department of State on a nationwide level. It houses the office of the Secretary of State and associated Bureaus. The building consists of eight floors and a basement, and two plan sections built at different periods. The original building was constructed in 1939 and intended to house the U.S. War Department, but due to a change in planning and priorities this never occurred and the building began housing DOS components shortly after its construction. But the original building has remained, commonly being referred to as "Old War," and then at a later period "Old State." In present time it is now called "The Marshall Wing." The original building was added on to significantly in 1957 with what was then called the State Department Extension, and later came to be known as "New State." Together both buildings have been referred to as "Main State." The entire building is formally known as the Harry S. Truman Building (HST). The HST Building includes the Marshall Wing now.

The plan layout of the HST Building is commonly rectilinear within both the original Marshall Wing and the subsequent State Department Extension. The Marshall Wing occupies the northeast quadrant of the site at the corner of E and 21st Streets; the DOS extension wraps around the western and southern sides of the older building. The Marshall Wing was constructed primarily as a U shape with the open side of the U facing east; below the first floor the building is predominantly a square. The State Department Extension connects to the original building on the west and south sides. The design creates a series of open courtyards, three small courtyards in the Marshall Wing section, and three much larger courtyards in the extension, one each in the northwest, southwest, and southeast quadrants. The building is aligned directly on a north-south and east-west, perpendicular axis.

Both buildings have similar exterior materials – buff limestone, combined with granite, and architectural styles of planar surfaces and minimal exterior ornamentation. Windows throughout the Marshall Wing are architectural bronze casements divided into three panels, each with a large central light with smaller lights above and below. At the basement level anodized aluminum windows were used. From the basement to the second story, the windows are set flush with the exterior walls while on the upper floors the windows are grouped vertically and recessed, with spandrels of polished granite, producing the effect of alternating piers and recesses. The east entrance provides a decorative element with a prominent colossal portico of four square piers from the third to the sixth floor. The C street entrance, now the main entrance, and the 23rd street entrance are similar in material and both have large canopies spanning the entrances. Exterior solid doors are bronze, and glass storefront at the south and east entrances. The many roofs of the building are flat with varied roofing systems, and interior roof drains. Some of the roofs have been converted to terrace areas.

The structural system for both buildings consists of steel columns and beams, with steel bar joists spanning the floors. Doors are a mixture of wood, metal, and glass where large glass doors are used for suite entrances and other accent areas. Interior walls are predominantly original plaster construction, although gypsum wall board has been used in later renovations. The basement contains mostly painted concrete block or glazed block finishes. Marble accent walls are used in corridors near areas such as elevator lobbies or other significant spaces such as the cafeteria. Wood trim and paneling is also utilized in significant areas such as the Secretary's Office. Most offices contain carpet flooring, with appropriate vinyl tile in support spaces. Corridors have a mixture of marble flooring, terrazzo, and vinyl tile. New ceramic tile flooring was installed in the cafeteria. Ceilings are predominantly 2' x 2' acoustic tile in offices and work spaces, with some 2' x 4' areas, and perforated metal in some

(b) (6)

SECTION B HST BUILDING STANDARDS

corridors. These are the predominant finishes in areas that have been renovated over the years, as well as in the most recent Phases 1A and 1B of the renovation. Otherwise, asbestos ceiling and lead-based finishes exist in much of the HST Building, as well as original marble accenting, and flooring. See Section B.2.3 Asbestos Abatement for more hazardous material information. Asbestos abatement has been completed for Phases 1A and 1B of the HST Building renovation.

B.2.2. Demolition

B.2.2.1. Pneumatic Tube System: The pneumatic tube system in the HST Building has been abandoned. All abandoned equipment shall be removed from the area under renovation. Any demolition should not start until notification is given to the A/OPR/FMS elevator shop to retrieve any parts or equipment that DOS wishes to retain. Vertical tube shafts may be re-used as office space, etc.

B.2.2.2. Convectors: Convectors beneath windows contain ACM. The contractor must contact A/OPR/FMS prior to demolition and disposal of these units. The contractor must also contact A/OPR/FMS after demolition is complete and before new work begins to facilitate replacement of the old convectors with new equipment. See Appendix B-XI for a detail of this condition.

B.2.2.3. Mechanical and Plumbing Systems: All abandoned equipment shall be removed from the area within slab to slab renovation. Any demolition should not start until written notification and a telephone call (202-647-5610) is given to the HST Building Manager, with a minimum of two (2) week timeframe before start of demolition. Facilities Management Services requires time to assess the affected system(s). Contractor shall not start the buildout of the renovated area until A/OPR/FMS has inspected the area and provided approval.

B.2.3. Asbestos Abatement

B.2.3.1 Required Removal of Suspected Asbestos Containing Floor Tile: Floor tile and mastic will sometimes contain asbestos. In order to avoid change orders and delays, DOS policy is to identify and abate all ACM floor tiles as part of design/build and/or design/bid/build projects. Areas of removal must be clearly indicated on design drawings and surveys conducted and provided for said areas.

B.2.3.2. Required Survey of Suspect ACM: Surveys are required during project design to determine the presence of ACM. If sampling results for the suspect materials in the project area are not readily identifiable in the survey report, then suspect ACM must be sampled and analyzed for asbestos content, or presumed to be asbestos-containing. This requirement is not dependent on the age of the material. If a hazardous material survey is not already available for the affected area, one must be prepared prior to commencement of work, regardless of the building's age or date of construction. EPA NESHAPS requires that an asbestos survey be performed prior to any renovation or demolition. All DOS spaces must have a hazardous materials survey performed which should be provided with the design submission. All documents and specifications should specify "New building materials must not contain asbestos."

Note: Surveys not required in HST Marshall Wing (Old War/Phase 1A), Phase 1B, and Phase 1C as these areas were completely abated and taken down to the slab during modernization.

B.2.3.3. DOS Domestic Asbestos Management Program: Refer to Projnet/RPM Portal/Collection Area for Standards and Guidelines/DOS Standards and Guidelines for access to all reference documents for review before project design. See also **Appendix B-I for Asbestos Fact Sheet for Carpet Removal and Installation**. The Asbestos Management Program has been developed to manage ACM that may be present in domestic facilities owned, operated or leased by DOS. The purpose of the program is to maintain ACM in good condition and minimize asbestos fiber release. This program has been prepared to comply with applicable health, safety and

environmental regulations including the Occupational Safety and Health Administration (OSHA) regulations 1910.1001, Asbestos General Industry Standard and 1926.1101, Asbestos Construction Standard. This program has been designed to promote the efficient and effective management of normal maintenance and renovation activities that may involve the disturbance of ACM.

B.2.4. Asbestos Containing Materials (ACM) In Buildings

Asbestos has not been banned from all building products. ACM can still be purchased and installed in buildings. All DOS projects should specify "New building materials must not contain asbestos." The following materials are suspect materials and may contain ACM. These materials have been found in some DOS Buildings. This list is not all-inclusive.

- Cement sheet ("transite" in metal pan ceiling tiles)
- Cement pipes/shingles (transite) Pipe insulation/mud
- Roofing felt/flashings/coatings
- Vinyl floor tile (various colors, 9 x 9 and 12 x 12)
- Linoleum Flooring
- Flooring mastic (various colors)
- Wall systems (wall board/mud)
- Plaster ceilings
- Ceiling/Wall Tiles
- Ceiling/Wall Tile mastic
- Duct insulation
- Duct mastic
- Sprayed-on/troweled on surfacing material (i.e. popcorn ceilings, etc.)
- Vapor barrier
- Heat shields

B.2.5. LEED Information

Appendix B XVI contains reference information regarding the HST Building for the A/E's use in obtaining LEED certification. It is the A/E's responsibility to determine which credits are applicable on a project by project basis, and calculate accordingly. A/E shall submit Federal Guiding Principles checklist for each project.

Federal Guiding Principles checklist is available online at https://www4.eere.energy.gov/femp/requirements/guidelines_filtering.

For existing buildings EnergyStar Portfolio Manager can be used to manage compliance details: http://energy.gov/sites/prod/files/2015/09/f26/sustainable_buildings_checklist.pdf

B.2.6 Historic Status of Harry S Truman Building

As of August 21, 2017 the entire Harry S Truman Building is listed on the National Register of Historic Places. Although the entire building is listed, the Historic Structures Report (HSR) completed in August 1990 provides a guide to the definition and location of historically significant areas within and outside the building. The HSR is made available for download in Projnet, RPM Portal/Collection Area for Standards and Guidelines/DOS Standards and Guidelines/HST Historic Structures Report-August 1990, by Real Property Management (RPM). The HSR takes into account the areas disturbed or renovated over the years no longer having a historic significance or containing original finishes.

The areas or zones are defined as:

- Restoration Zones -Areas of particular architectural significance to be restored, through careful investigation, to the most historically significant appearance.
- Rehabilitation Zones -Areas that contain significant details or elements, which should be retained or restored as part of any repair project.
- Renovation Zones -Areas that do not contain historically significant details, and can be

SECTION B HST BUILDING STANDARDS

repaired or altered to insure the usefulness and stability of the building, so long as the areas of restoration and rehabilitation are not affected.

A another category is identified in the HSR as "special spaces." This refers to a number of office suites on the 6th Floor, 2 Corridor (specifically suites 6212, 6218, 6226, 6234, 6242, 6250, 6254 and 6252). The original materials are called out and there is an obligation to protect and restore the identified original fabric or materials in these office suites.

In accordance with procedures under Section 106, required by 36 CFR Part 800 of the National Historic Protection Act (NHPA), planned work within designated areas require initiation of consultations with the DC State Historic Preservation Office (DC SHPO) and the Advisory Counsel for Historic Preservation (ACHP) prior to proceeding.

Prior coordination with A/OPR/RPM is required prior to planning work within any of the building entrance lobbies, elevator lobbies, the Dean Acheson Auditorium, the Loy Henderson Conference Center, the Exhibit Hall, the Library Reading Room (3239), or any stone clad areas. In addition, work planned within the above listed 6th Floor, 2 Corridor suites. Within the prior coordination with A/OPR/RPM is required prior to planning work in the Marshall Wing within any stone clad areas; the entrance lobby including the elevator lobbies; the Marshall Wing second floor mezzanines and elevator lobbies; the third floor elevator lobbies and suites 3932, 3934, 3936, 3938, 3940, 3942 and 3950; the fourth floor elevator lobbies and suites 4932, 4934 and 4950; the fifth floor elevator lobbies, the reception lobby 5935 and suites 5932, 5934, 5936, 5948 and 5950; the sixth floor elevator lobbies; the eight floor elevator lobbies.

B.3. CONCRETE

B.3.1. Floor Loading

A floor loading table showing allowable live loads for various areas of the HST Building is included in **Appendix B-II**.

B.3.2. Floor Loading with Mosler Safes

DOS utilizes safes manufactured by the Mosler Safe Company. Due to the heavy weight of the Mosler safes (5 drawers - 980 lbs., 4 drawers - 755 lbs.), careful attention should be given to the placement of the Mosler safes so that the structural integrity of the concrete slab is maintained. Refer to the 1957, State Department Building Extension and Remodeling floor framing plan drawings, to assist with floor load calculations and safe placement. The following guidelines have been developed by Advance Engineers Ltd. (see Appendix B-XXII for memo dated January 24, 2002) for the placement of safes in the HST Building:

- One safe may be placed at any location on the floor.
- Two safes may be placed together at any location on the floor, but there should be no other safes within an 18 inch perimeter around these two.
- Three safes may be placed together with a clear area of 24" all around that is free of additional safes.
- Four safes may be placed together (back-to-back or side-by-side) with a clear area of 28" all around that is free of additional safes.

B.4. MASONRY

B.4.1. Dimension Stone Cladding – Marshall Wing

This Section includes dimension stone panels set with individual anchors.

B.4.1.1. Specifications:

(b) (6)

- a. Refer to Spec Section 04851 Dimension Stone Cladding, Amendment No.2: 13 August 2003.

B.5. METALS

B.5.1. Lobby Finishes

B.5.1.1. In the C Street and D Street lobbies of the HST Building, brushed aluminum, to match existing, shall be used. Anodized aluminum shall be used in all other areas.

B.5.2. Metals - Marshall Wing

B.5.2.1 Ornamental Metal:

- a. This section includes the following:

- Ornamental metal cladding and trim on hollow metal doors and frames
- Custom door pulls and push bars to replicate existing bronze historic hardware
- New replacement bronze reveals at top of existing stone panels to match existing
- New decorative light fixtures to replicate existing historic fixtures

- b. Specifications

- Refer to Spec Section 05700 Ornamental Metal, Amendment No.2: 13 August 2003

B.5.2.2. Ornamental Railings:

This section includes copper-alloy metal railings

- a. Specifications: Refer to Spec Section 05721 Ornamental Railings, Amendment No. 2: 13 Aug 03.

B.5.2.3. Ornamental Formed Metal:

- a. Specifications – Refer to Spec. Section 05730 Ornamental Formed Metal, Amendment No.2: 13 Aug 03.

B.5.2.3. Restoration of Ornamental Metal:

- a. Refer to Spec. Section 05910 Ornamental Restoration, Amendment No. 2: 13 Aug 03.

B.6. WOOD, PLASTICS, AND COMPOSITES

B.6.1. Interior Architectural Woodwork – Marshall Wing

The section includes interior standing and running trim, custom designed wood cabinetry and wood countertops, interior frames and jambs, and shop finishing of interior millwork.

B.6.1.1. Specifications:

- a. Refer to Spec Section 06402 Interior Architectural Woodwork, Amendment No. 2: 13 Aug 03
- b. Refer to Spec Section 06408 for Existing Woodwork Restoration in historic areas.
- c. Refer to Spec Section 06429 for Existing Paneling removal, salvage and storage.

SECTION B HST BUILDING STANDARDS

B.6.2. Plastic Laminate – Marshall Wing

This section includes plastic laminate for casework and countertops in the Conference Center and in Tenant Copy I Files rooms and Coffee Bars

B.6.2.1. Specifications:

- a. Refer to Spec Section 06402 Wood and Plastics, Amendment No.2: 13 August 2003

B.6.3. Solid Surface Materials - Marshall Wing

This section includes solid surface material for countertops in the Conference Center, Catering Kitchen and in the Conference Center Restrooms.

B.6.3.1. Specifications:

- a. Refer to Spec Section 06402, Wood and Plastics, Amendment No. 2: 13 August 2003

B.7. THERMAL AND MOISTURE PROTECTION - Not Applicable

B.8. OPENINGS

B.8.1. Corridor Doors (Suite Entry)

Doors shall be designed and selected with a consistent and planned approach that creates an aesthetically pleasing solution throughout the building. The following options for standard and above standard doors are shown in **Appendix B-III**. Since there are separate portions and various uses throughout the building (front office space, standard offices, retail, etc.), use of these standards should be on a case-by-case analysis. The standard width for corridor doors is 36 inches.

B.8.1.1. Corridor door assemblies shall have a 3/4 hour fire protection rating. For maintenance reasons, wood frames and trim are not allowed.

Option 1 - Wood door with hollow metal frame: Door shall be flush solid-core quarter-sawn oak door, 45 minute rated assembly, C label, with hollow metal frame. Finish shall be Minwax Golden Oak; interior side may be matched to interior office doors. In order to enhance security, the number of corridor doors shall be minimized to meet life safety standards and other specific operational requirements.

Application: For all office renovations except Assistant Secretary and higher level offices.

Option 2 - Wood door with sidelights and/or door lights with hollow metal frame: As an upgrade to Option 1, door lights and sidelights may be added. Finishes and fire rating are the same as for Option 1. Non-rated doors are allowed in sprinkler protected locations.

Application: For Assistant Secretary and higher-level offices.

Option 3 – Glass/Aluminum Storefront: As determined by the design review team, glass storefront may be used for public/retail spaces (i.e. 12xx corridor, etc.) Aluminum finish shall be natural.

Application: For public spaces.

Note: To avoid misinterpretation, the DOS project manager shall make the determination of the appropriate door style as part of developing the A/E scope of work. Any deviation from these standards must be submitted for approval per Paragraph B.1.1.

B.8.1.2. Corridor suite doors shall have mop plates to match building original. Mop plates shall be stainless steel, 4 inches high by .050" thick, with a brushed finish (US32D), and have beveled edges

and countersunk mounting holes. Mop plates shall be mounted flush to the bottom of the door with a one-inch border at the sides. For building standard 36 inch wide doors, mop plate shall be 34 inches wide.

B.8.2. Door Alcoves

For occupancy loads greater than 50, egress doors shall swing in the direction of travel (NFPA 101). When this condition exists, corridor doors shall be set back from the corridor within an alcove, so that the leading edge of the door does not protrude into the clear path of the corridor.

B.8.3. Corridor signage and security devices

Consistent signage and security devices shall be provided throughout the building. The location of any security devices shall be subject to architectural review by A/OPR/RPM based on the following guidelines and attached sketches.

B.8.3.1. Doors Flush with Corridor Walls:

- For single doors, signage and security devices will be in the corridor on the latch side of the door. Refer to **Appendix B-IV, Door Flush with Corridor Wall**.
- For double doors, signage and security devices will be on the side of the active leaf. Location dimensions are the same as for single door in **Appendix B-IV**.

B.8.3.2. Doors Located within Alcoves:

- Signage will be on the corridor side of the alcove.
- For single doors, signage and security devices will be on the latch side. Refer to **Appendix B-V, Alcove with single door**.
- For double doors, signage and security devices will be on the passive leaf side. Refer to **Appendix B-VI, Alcove with double door**.

B.8.4. Doors at Corridor Intersections

Office or suite doors should not be placed on any walls at the intersection of two corridors. Where two corridors intersect, the wall at the end of the corridor should not have any suite doors within 10 feet of either side of the corridor centerline. This is to allow wall space for signage and security hardware.

B.8.5. Corridor and Interior Door hardware

B.8.5.1. Corridor and Interior Door Hardware Shall Be:

- (1) Brushed chrome-finish (Also known as: Satin Chromium, ANSI 626, BHMA-626, or US 26D). Recommend Schlage 'D' Series or equivalent.
- (2) Centerline of strike shall be 40-5/16 inches from bottom of frame.
- (3) Corridor hardware shall be heavy duty cylindrical locksets with lever handles. Mortised locksets shall not be used.

B.8.6. Corridor Thresholds

Corridor thresholds are to be gray marble, meet ADA requirements, and act as a dam to prevent wax and stripper, used during floor maintenance operations, from damaging the carpet within the office space. The thresholds shall be 6" wide, 3/4" high, with 1/4" height at edge, and with top flat part being 3 1/2" wide. Thresholds shall be set in thin-set cement. Current DOS manufacturer sources for thresholds are:

- Daltile Corporation (6760 Gravel Ave; Franconia, VA (703- 971-8485).
- Sita Tile & Marble (8510 Truck Way; Capitol Heights, MD (301-324-2004).

SECTION B HST BUILDING STANDARDS

Note: The use of construction adhesive for threshold installation is not allowed, due to adhesive seepage which has been known to discolor the marble.

B.8.7. Infill of Corridor Wall after Removal of Corridor Door Frames

Upon elimination of a corridor door, the doorframe shall be removed and the opening filled with 4" block finished with plaster to match the existing corridor surface. Vinyl base shall be installed to match existing base.

B.8.8. Interior Doors

B.8.8.1. Interior door finishes shall be selected consistent with the interior design scheme of the office suite. Typically, quarter sawn lumber doors are not required for interior spaces; solid core stain grade birch doors are used for these spaces. All doors shall be 7'0" in height.

B.8.8.2. Interior Door Accessories: Metal coat hooks shall be provided on the interior side of office doors at 66" from bottom of door.

B.8.9. Doors - Marshall Wing

B.8.9.1. Steel Doors and Frames - Specifications:

- a. Refer to Spec. Section 08110 Steel Doors and Frames, Amendment No. 2: 13 August 2003. This Section includes the following:

- Steel doors and frames
- Sidelight frames in perimeter tenant offices
- Fire-rated door and frame assemblies
- 2-hr rated doors at Mechanical Rooms
- 3/4-hr rated doors at Electrical Closets

B.8.9.2. Flush Wood Doors: Refer to the following sections in the Specifications Document, Amendment No. 2, 13 August 2003 for the following door types and respective sections.

- a. Section 08211: Flush Wood Doors.
- b. Section 08311: Access Doors and Frames.
- c. Section 08385: Acoustic Doors. Solid core doors with decorative inlay at suite entrances (wood frames).

B.8.9.3. Bronze Storefront: Refer to Section 08530, Bronze Storefront. The planned, glass enclosed security station at the elevator lobby was not built during the Phase 1A renovation. Plans are available should the security station need to be built out at a later date.

B.8.9.4. Door Hardware, Automatic Door Operators, and Automatic Doors Seals: Refer to Sections 08710 Door Hardware, Section 08716 Automatic Door Openers, and Section 08730, Acoustic Door Seals for detailed information.

B.8.10. Windows

B.8.10.1. Window Frame & Sill Cleaning: The contractor is responsible to protect and clean the window frames and sills during renovations.

B.8.10.2. Window Film: Glass fragment retention film is currently installed on all existing windows and is not required as a normal part of office renovations. Madico DG 35 Film is installed on all windows with southern exposure along C Street; DG 45 is installed on all other windows, with

few exceptions. The A/E shall verify the presence of the window film as part of their site survey. The contractor is expected to provide reasonable care to protect the film from damage during renovations.

B.8.10.3. Window Pocket: A detail of the original ceiling and window head configuration of the HST Building is shown in Appendix B-VII for information purposes. Subsequent renovations have included variations of this detail, specifically how the new ceiling aligns or meets the existing windows. Window head conditions will be field verified prior to design and appropriate ceiling and window head details developed on a case by case basis.

B.8.11. Glazing - Marshall Wing

This Section includes glazing for the following products and applications.

- Glazing for doors and sidelights
- Decorative glass sheets, wall-mounted with channel supports
- Glass tiles, installed as wall tile
- Glazing for butt-glazed storefronts
- Insulated glazing units for Simultaneous Interpretation (SI) booths.

B.8.11.1. Specifications:

- a. Refer to Spec Section 08800 Glazing, Amendment No. 2: 13 August 2003
- b. Window Pocket: The window pocket detail used in the Old State Renovation project shall be Building Standard for renovation work.
- c. Marshall Wing Window Frame & Sill Cleaning: The contractor is responsible to protect and clean the window frames and sills during renovation.

B.8.12. Mirrored Glass - Marshall Wing

This Section includes glazing for the following products and applications.

- Safety (laminated) mirrored glass
- Tinted, silvered mirrored glass
- Beveled, silvered mirrored glass

B.8.12.1. Specifications:

- a. Refer to Spec Section 08814 Mirrored Glass, Amendment No. 2: 13 August 2003

B.9. FINISHES

B.9.1. Walls

B.9.1.1. Wall Thickness: Gypsum board thickness for standard partitions should be 5/8".

B.9.1.2. Gypsum board that is used on the inner face of any exterior wall on a public street shall be foil-backed. Standard taping methods and materials may be used. (Walls that face building courtyards are excluded.)

B.9.1.3. Wood Paneling: The use of wood paneling shall be for Assistant Secretary and higher and other space requiring this level of finish.

B.9.2. Walls - Marshall Wing

Historic wall finishes in the Marshall Wing are extensive and described herein in summary form and by

SECTION B HST BUIDLING STANDARDS

reference only. Refer to Phase 1A renovation documents specification, Amendment No. 2, 13 August 2003 for detailed information.

B.9.2.1. Gypsum Plaster: Refer to Spec. Section 09210, Gypsum Plaster.

B.9.2.2. Ceramic Wall Tile: Refer to Spec. Section 09310, Ceramic Tile.

B.9.2.3. Acoustic Wall Panels: Refer to Spec. Section 09615, Acoustic Wall Panels.

B.9.2.4. Wall Coverings: Refer to Spec. Section 09720, Wall Coverings.

B.9.2.5. Fabric-Wrapped Panels: Refer to Spec. Sections 09515 Acoustic Walls Panels, and 09771 Fabric Wrapped Panels.

B.9.2.6. Interior Metal Wall Panels: Refer to Spec. Section 09775, Metal Walls Panels.

B.9.2.7. Paint: Refer to Spec Sections 09900 Painting, and 09960 High Performance Coating.

B.9.2.8. Wood Paneling: Refer to Spec Sections 06408 Wood Restoration, and 06420 Wood Paneling.

B.9.3. Ceilings

B.9.3.1. Ceiling Tile: Class A fire rating, beveled tegular, light reflectance = .86. Ceilings shall generally have a minimum noise reduction coefficient (NRC) of 0.60 (preferably 0.80 in open office areas and between 0.75 and 0.85 in conference rooms. The NRC shall be determined in accordance with the methods specified in ASTM C423-09a, Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.

B.9.3.2. Ceiling Grid: 9/16" Exposed Tee System

B.9.3.3. Drywall Ceilings: The use of drywall ceilings shall be minimized due to access problems above the ceiling and facilitate maintenance of ceiling-mounted equipment. This type ceiling shall only be used for Assistant Secretary and higher and other space requiring this level of finish. Access panels shall be provided for MEP equipment requiring access (such as VAV boxes, junction boxes, and cleanouts).

B.9.4. Ceilings - Marshall Wing

Historic ceiling finishes in the Marshall Wing are extensive and described herein in summary form and by reference only. Refer to Phase 1A renovation documents specification, Amendment No. 2, 13 August 2003 for detailed information.

B.9.4.1. Acoustical Ceiling Tile: Refer to Spec. Section 09511 Acoustical Panel Ceilings.

B.9.4.2. Special Ceiling Surfaces: Refer to Spec. Section 09511 Acoustical Panel Ceilings.

B.9.5. Flooring

B.9.5.1. Vinyl Cove Base: Vinyl cove base in offices shall be 4" high and 0.125" (1/8") thick, provided in straight sections.

B.9.5.2. Corridor cove base is to be black vinyl.

B.9.5.3. Computer Room Flooring: All computer room raised flooring shall be equipped with

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stringers.

B.9.5.4. Carpet: The purchase and installation of carpet shall be included in the general contract. For carpet that is on GSA Schedule, DOS will provide a letter to the contractor authorizing the purchase from GSA Schedule sources.

B.9.6. Flooring - Marshall Wing

B.9.6.1. Ceramic Tile:

a. Specifications

1. Refer to Spec Section 09310 Ceramic Tile, Amendment No.2: 13 August 2003

B.9.6.2. Dimension Stone Flooring:

a. Specifications

1. Refer to Spec Section 09385 Dimension Stone Tile, Amendment No. 2: 13 August 2003
2. Refer to Spec Section 09638, Stone Paving and Flooring, Amendment No. 2: 13 August 2003
3. Refer to Spec Section 07920 Joint Sealants, for sealing stone joints with elastomeric sealants
4. Refer to Spec Section 09751 Interior Stone Facing, for interior stone base and countertops
5. Refer to Spec Section 09759 Interior Stone Restoration, for repair of existing interior stone

B.9.6.3. Wood Flooring:

a. Specifications

1. Refer to Spec Section 09640 Wood Flooring, Amendment No.2: 13 August 2003
2. Refer to Spec Section 09649 Existing Wood Flooring, Amendment No.2: 13 August 2003

B.9.6.4. Resilient Flooring: The resilient flooring in the Marshall Wing is extensive and included herein only in summary form and by reference only. Refer to Specification Section 09651 Resilient Floor Tile, Section 09653 Resilient Wall Base and Accessories, and Section 09654 Linoleum Floor Coverings for detailed information; Amendment No. 2: 13 August 2003.

B.9.6.5. Carpet and Carpet Tile: The carpet and carpet tile the Marshall Wing is extensive and included herein only in summary form and by reference only. Refer to Specification Section 09680 Carpet, Section 09653 Resilient Wall Base and Accessories, and Section 09681 Carpet Tile for detailed information; Amendment No.2: 13 August, 2003.

B.9.7. Convactor Covers

Convactor covers shall be stripped to bare metal before priming and applying finishes. See **Appendix B-XI**.

B.9.8. Corridor Colors (New State)

B.9.8.1. Standard color for all floors except the 6th floor is Duron semi-gloss Shell White (5770W)

B.9.8.2. Standard color for the 6th floor is Duron semi-gloss White Solitude (CW057W)

SECTION B HST BUILDING STANDARDS

B.9.9. Corridor Striping (New State only)

The striping is a 4" wide stripe, the top of which aligns with the top of the standard door frame height. Striping in corridors only, stopping short at alcoves or doors higher than standard within the corridor wall. Duron semi-gloss colors are as follows:

Corridor 0:	Parade Blue 7084M
Corridor 1:	Bonzai Green 7186N
Corridor 2:	Blue Brilliance AC079N
Corridor 2a:	Bunting Blue 7551W
Corridor 3:	Cortez Gold 7725A
Corridor 4:	Aqua Fantasy 7106A
Corridor 5:	Tahitian Sun 7336A
Corridor 6:	Solid Gray 8534M
Corridor 8:	Fire Princess 7396N
Corridor 9:	Mythic Fire 7796N

B.9.10. Panel Displays, 6th Floor

B.9.10.1. The display panel background areas run vertically from the top of door frame down to the base. Horizontally the backgrounds run as follows:

- For 1 panel displays: the background color extends to 9" either side of the panel.
- For 2 panel displays: the background color extends to 13" on either side of the panels
- For 3 panel displays: the background color extends to 18" on either side of the panels

B.9.10.2. Colors:

- The background color for the display panels is Duron, Desert Tumbleweed 8723M
- The corridor walls are Duron, White Solitude CW057W (6th floor only)
- The accent panel adjacent to the door, including the frame, is Duron, Desert Fawn 8222W

B.10. SPECIALTIES

B.10.1. Raised Access Flooring – Marshall Wing

Computer Room 3684 and Staging Room 3684A. Refer to Spec. Section 10270, Access Flooring, Amendment No. 2, 13 August 2003.

B.10.2. Operable Partitions – Marshall Wing

Refer to Spec Section 10661 Operable Panel partitions, and 08710 Door Hardware, Amendment No. 2, 13 August 2003.

B.11. EQUIPMENT

B.11.1. Stage Curtains – Marshall Wing

B.11.1. Specifications:

1. Refer to Spec Section 11063 Curtains for Raised Platform, Amendment No.2: 13 August 200. Refer to Section 05500 Metal Fabrications for supplementary members supporting curtain system to structure

B.11.2. Check Room and Projection Equipment – Marshall Wing

Refer to Spec. Section 111090 Checkroom Garment Hanging Equipment, Section 11132 Projection

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Screens, and 11133 Projection Lifts, Amendment No. 2, 13 August 2003.

B.11.3. Food Service Equipment – Marshall Wing

Refer to Spec. Section 11400 Food Service Equipment, for food service equipment specified for the conference center catering kitchen Amendment No. 2, 13 August 2003.

B.12. FURNISHINGS

B.12.1. Blinds

All exterior windows (including courtyards), within Phase 2, shall have blinds that are 2 inch aluminum, horizontal, off-white blinds (Levelor or equal). To ensure the appearance of the building façade and the window treatment is consistent, vertical blinds, mini-blinds, etc., are not permitted. Coordinate blinds selection with RPM project manager.

A/OPR/FMS will not replace blinds in a newly renovated area. Blinds are the tenant's responsibility if the existing blinds in the area of renovation cannot be taken down by the contractor and stored for re-use, or if the tenant wants new blinds as part of the renovation. If existing blinds are in good working condition and appearance, they should be removed, cleaned and reinstalled. FMS will continue to replace those blinds that are damaged or broken due to normal use. DOS' source for Venetian blinds is:

Fabricare Draperies, Inc
11910 Park Lawn Drive
Rockville, Md. 20852
301-770-2457

Note: As required, the DOS project manager shall make the determination of the appropriate window treatment as part of developing the A/E scope of work.

B.12.2. Draperies

As an upgrade to Option B.12.1, draperies may be added only for Assistant Secretary and higher-level offices. All draperies shall be of fire-retardant material.

B.12.3. Manufactured Wood Casework – Marshall Wing

Refer to Spec. Section 1320 Manufactured Wood Casework, and 06402, Interior Architectural Woodwork, Amendment No. 2, 13 Aug 2003. Refer to Section B.6 in this document for plastic laminates used on manufactured wood casework.

B.12.4. Fixed Auditorium Seating – Marshall Wing

- a. Specifications: Refer to Spec Section 12610 Fixed Audience Seating, Amendment No.2: 13 August 03

B.12.5. Window Treatments – Marshall Wing (and Phases 1B and 1C)

B.12.5.1. Roller Shades:

- a. Specification: Refer to Spec Section 12494 Roller Shades, Amendment No. 2, 13 August 2003.

B.12.6. Replacement Roller Shades – Marshall Wing (and Phases 1B and 1C)

A/OPR/FMS will not replace roller shades in a newly renovated space. If existing roller shades are in good working order and appearance, they should be removed, cleaned if necessary and reinstalled.

SECTION B HST BUILDING STANDARDS

In the event the contractor is unable to take down the existing roller shades prior to renovation and store them for re-use, repair and replacement becomes the tenant's responsibility. FMS will continue to replace roller shades that are damaged or broken due to normal wear and tear.

B.12.7. Drapery – Marshall Wing

Drapery treatments are reserved as an above-standard option for the Assistant Secretary, Principal Deputy Assistant Secretary (PDAS), and Deputy Assistant Secretary (DAS) only. Draperies shall be fabricated using an inherently fire-retardant fabric or a natural-fiber fabric that has been treated with a flame retardant.

B.12.8. Area Rugs – Marshall Wing

Area rugs shall be selected with the assistance of a licensed interior designer to insure the style selected takes into consideration the historic nature of the building, existing color palette of the renovated building, scale of the room, pattern of the wood floor and prototypical furniture arrangement for each room.

B.13. SPECIAL CONSTRUCTION

B.13.1. Private Bathrooms

Private bathrooms shall only be allowed for Assistant Secretary and higher-level offices. Private bathrooms shall have only a toilet and a sink. Standard accessories such as paper towel dispensers and toilet paper dispensers shall be provided.

B.13.2. Kitchenettes

The policy is that no new 'wet' kitchens will be installed in future HST Building renovations. Existing functional 'wet' sinks are to be retained.

B.14. CONVEYING EQUIPMENT

B.14.1. HST Building Pneumatic Tube System

Pneumatic Tube System: Except for selected areas on the fifth through eighth floors, the pneumatic tube system in the HST Building has been abandoned. See B.2.1 Demolition.

B.15. RESERVED – Section under Development by CSI

B.16. RESERVED – Section under Development by CSI

B.17. RESERVED – Section under Development by CSI

B.18. RESERVED – Section under Development by CSI

B.19. RESERVED – Section under Development by CSI

B.20. RESERVED – Section under Development by CSI

B.21. FIRE PROTECTION AND LIFE SAFETY

B.21.1. HST Ratings and Criteria

B.21.1.1. Corridor Fire Rating: Per previous agreement between GSA and A/OPR/FMS, the intent

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is to provide a 1-hour fire rated equivalency below, but not including, the false ceiling throughout New State. If a fire rated corridor door is not provided, sprinkler protection shall be provided within the office suite and in the corridor extending 25 feet in all directions from the non-rated door. Refer to HST Building Standards, Section B.8.1 – OPENINGS, for additional requirements.

B.21.1.2. Piping Design Criteria: Fire pump performance tests are performed annually by A/OPR/FMS/DESD. The most recent pump test data shall be used for use in sprinkler system hydraulic calculations. The most recent pump test data is located in **Appendix B-VIII**.

B.21.1.3. Restraining Clips: Static and residual sprinkler system pressures exceed 100 PSI throughout the HST Building. Hangers with restraining clips shall be provided at end sprinklers to counter the upward thrust of a discharging sprinkler. Restraining clips shall be used in lieu of extending the all-thread rod for ease of inspection and to help ensure that the hanger rod is fully engaged in the expansion shield in the slab above.

B.21.1.4. Fire Alarm Conductors: Conductors used on modified circuits throughout the "New State" portion of the HST Building shall be in accordance with the Fire Alarm Conductor Chart shown in **Appendix B-X**. Conductors used on new fire alarm circuits throughout "New State" and all circuits in "Old State" shall be in accordance with the Fire Alarm Conductors Cable shown in **Appendix B-X**.

B.21.2 Automatic Sprinkler Systems - Where Required

B.21.2.1 Automatic fire sprinklers shall be installed as part of renovation projects under the following circumstances:

a. Spaces for use other than office occupancy (e.g., computer room, storage, print shop, photo lab, etc.) shall be sprinkler protected regardless of floor area. Sprinklers are required even if it involves construction of sprinkler system infrastructure outside the project site (e.g. Tie-in to standpipe, new zone control assembly (ZCA), or new feed main from ZCA to project site, etc.).

b. Office areas over 3,000 sq. ft. shall be sprinkler protected. Sprinklers are required even if it involves construction of sprinkler system infrastructure outside of the project site.

c. Major Renovations: Office areas between 1,000 - 3,000 sq. ft. shall be sprinkler protected where the renovation involves one of the following:

- 1) Complete floor plan change (removal/construction of walls), or
- 2) Complete removal of ceiling, or
- 3) Removal/replacement of more than 50% of utilities within the project area (lights electrical, plumbing, HVAC, etc.)

d. Office areas under 3,000 sq. ft. shall be sprinkler protected if existing sprinkler infrastructure is nearby. Sprinkler are required if:

- 1) Existing sprinkler feed main is located in adjacent corridor within 100 ft., or
- 2) Existing cross main or branch line piping is located in adjacent tenant space.

B.21.2.2 Automatic sprinkler protection is not required for renovations where all of the following apply:

- a. Office area under 1,000 sq. ft., and
- b. Project site is in a non-sprinkler portion of the building where sprinkler infrastructure is not available nearby, and
- c. Project is not considered a Major Renovation as defined above, and

SECTION B HST BUILDING STANDARDS

d. Omission of sprinkler from project scope is approved by A/OPR/FMS/DESD at concept phase of project planning.

B.22. PLUMBING

B.22.1. Plumbing Systems

All building practices and installations of plumbing systems at the HST Building shall follow the National Codes and Standards as stated in the latest edition of the General Requirements (at the time of construction) of the GSA, PBS-P100. Each phase of the construction from design, demolition, installation and commissioning must have A/OPR/FMS approval in writing before proceeding to the next phase. Notice will be submitted for any required outages during the construction with a minimum of a two (2) week lead time, to give building management time to evaluate the various systems and consequences of the outage.

B.22.1.1. Lock-out/Tag-out: All plumbing components and fixtures being worked on and any equipment servicing them shall be "locked out and tagged-out" until the completion of the project. The components are locked to prevent access, and so identified by placement of a tag.

B.23. HEATING, VENTILATION, AND AIR CONDITIONING

B.23.1. ASHRAE Indoor Air Quality Standards

ASHRAE 62.1 Ventilation Standards for Indoor Air Quality (current edition) shall be met. Designer shall assume 30% minimum outside air at all HPAC air handlers.

B.23.2. Lock-out/Tag-out

All mechanical equipment and related components being worked on shall be "locked out and tagged-out" until the completion of the project. The equipment is locked to prevent access, and so identified by placement of a tag.

B.23.3. Main Chiller Plant Operations

The HST Building chiller plant operates 24/7, 365 days per year. It provides year-round chilled water at approximately 45 ° F with coils operating at a 12°F delta T. The chiller plant utilizes four 1800 ton centrifugal chillers or the water-side economizer to deliver chilled water to the building. The water-side economizer is sized and intended to deliver chilled water to large mission critical applications only (currently not used); this will include areas such as large computer rooms, telephone frame room, communication equipment room (CERs), command and control areas such as the DS command centers.

B.23.4. Chilled and Heating Hot Water Piping Insulation and Marking

Chilled water piping exposed to the weather shall have cellular glass (FOAMGLASS) with aluminum jackets. Chilled and hot water piping indoors shall be fiberglass with scrim covering. Horizontal chiller water piping and fittings below 5 feet above the finish floor shall have a white PVC covering to protect the insulation. Insulation thicknesses shall comply with ASHRAE 90.1.

Chilled water piping identification shall have white lettering with green background and shall be marked "Chilled Water Return" or "Chilled Water Supply" with direction arrows. Heating hot water shall have black lettering with yellow background and shall be marked "Heating Hot Water Supply" or "Heating Hot Water Return" with direction arrows. and standalone units throughout the HST Building.

B.23.5. Chilled Water and Heating Hot Water Valves for Coils

All water coils shall have supply and return shut off valves, including a balancing valve, a drain valve with hose connection, a strainer in the supply, a control valve in the return, an air vent and cocks

(b) (6)

in the supply and return for pressure and temperature gages. Combination valves shall not be used. The balancing valve shall not be used as a shut off valve. All the above items shall be accessible. The strainer may be used as a drain on small coils provided there is a ball with hose connection on the strainer discharge and the supply is on the bottom of the coil.

B.23.6. Hot Water Boiler Plant Operations

The HST Building has three heating hot water boiler plants of the condensing type with separate piping loops, pumps and controls. The following system descriptions are not all-inclusive. There are subsystems and standalone units throughout the HST Building.

The 9th floor boiler room produces hot water in the range of 100°F to 160°F. This plant serves all HPAC (High Pressure Air Conditioning) units, the AHU B1, AHU B2, AHU B3, AHU B4, AHU B5, AHU B6 in the basement, a few VAV Box reheat coils on the first floor AHU 1-1 system, and VAV Boxes on the first floor of Phase 1A. The Phase 1A Hot Water Boilers in Fan Room 2 produce water in the range of 100°F to 180°F. They serve the Phase 1A area and the U.S. Diplomacy Center.

The Phase 1B Hot Water Boilers in Fan Room 2 produce water in the range of 100°F to 180°F. They serve the AHU-8-1 through AHU-8-5, perimeter radiant heat, and a few VAV Boxes throughout Phase 1B.

B.23.7. Backup Cooling with Emergency Power and Energy Efficiencies

Backup cooling on normal power and with standby generator power is provided for mission critical applications only. If electric reheat is specified for any equipment, it must be de-energized during generator power operation. The primary cooling is normally by chilled water from the main chiller plant. Secondary cooling is by the backup cooling chiller. This limits energy consumption to the lowest possible level. Mission critical applications include computer rooms, command centers, security equipment, and some server rooms. The criticality of the mission will be reviewed and evaluated by the customer, FMS, and RPM during the design phase. If the team cannot develop a consensus on the criticality of the mission, the RPM project manager will escalate the decision to higher DOS authority for resolution and so notify the A/E.

B.23.8. Energy Efficiencies in a High Energy Use Space

Generally, in a room with only IT equipment, no dehumidification is required within that room in the HST Building. Dehumidification, if used, must be justified by the design engineer. The engineer shall provide a PUE calculation. PUE shall be a maximum of 1.3 on existing data centers.

B.23.9. System Overview – Marshall Wing

B.23.9.1. Chilled Water System Serving the Marshall Wing: The HST Building chiller plant operates 24/7, 365 days per year, and provides year-round chilled water at approximately 45°F. The chiller plant utilizes the centrifugal chillers or the water-side economizer to deliver chilled water to the building. A 12-inch connection is utilized to tie the Marshall Wing into the HST central plant. Chilled water is provided to the main air handling units on the seventh floor, to air handling units on the second floor that serve the Conference Center, and to miscellaneous fan coil units throughout the building.

B.23.9.2. Hot Water Distribution System Serving the Marshall Wing: The Phase 1A Hot Water Boilers in Fan Room 2 produce water in the range of 100°F to 180°F. They serve the AHU's 1 thru 15 on the 7th floor mechanical room of Phase 1A, one AHU each on the 2nd and 3rd floor of Phase 1A, and VAV boxes with reheat on the first floor of Phase 1A.

B.23.9.3. Air Side System for Marshall Wing: The seventh floor of the building is used as a mechanical room for the majority of the air handling units located in the building. There are a total of 15 modular air handling units located in this area that serve the building. Outside air ductwork is extended up through the eighth floor and terminates at gravity intake hoods located on the roof. A series of supply air ducts and return air ducts run vertically down through the building from each

SECTION B HST BUILDING STANDARDS

air handling unit. Horizontal ducts tap off the vertical risers to serve induction boxes located on each floor of the building. The units are equipped with 30% pre-filters, 85% final filters, hot water heating coils, chilled water cooling coils, humidifier, ultraviolet (UV) emitters (no longer in use), and variable frequency drives. There are also units serving the conference center on the first floor. These units are located on the second floor for the building.

B.23.10. Ductwork

All ductwork shall be constructed in accordance with the SMACNA Design Manuals.

B.23.10.1. Insulation: All exposed outdoor air, supply air, and return air ductwork in mechanical rooms shall be insulated with 2-in. rigid fiberglass board insulation having a minimum nominal density of 6.0 lb/cu. ft., a thermal conductivity of not more than 0.22 Btu/h/sq.ft./deg F/in. at 75 deg F mean temperature, and a foil-scrim-kraft (FSK) vapor barrier jacket having a maximum permeance of 0.02 perms. All concealed outdoor air, supply air, and return air ductwork in shafts and above ceilings (including supply air ductwork downstream of VAV boxes) shall be insulated with 2-in. flexible fiberglass insulation having a minimum nominal density of 0.75 lb/cu. ft., a thermal conductivity of not more than 0.30 Btu/h/sq.ft./deg F/in. at 75 deg F mean temperature, and an FSK vapor barrier jacket having a maximum permeance of 0.02 perms. No fibrous insulation (duct liner) shall be used inside of ductwork. Exceptions must be approved.

B.23.10.2. High pressure duct systems (supply air ductwork upstream of VAV boxes) shall have a 10 in. w.c. pressure classification with Seal Class A as defined by the SMACNA HVAC Duct Construction Standards Metal and Flexible, latest edition. If new or replacement flexible ducts are required in a high pressure duct system, Thermaflex MK-C flexible duct having a pressure rating of 10 in. w.c., or equivalent, shall be used. All flex ducts shall have a minimum diameter equal to the inlet diameter of the mixing box. All connections shall be air-tight and connected to duct take-offs and box collars using stainless steel bands with a worm gear. No existing flex duct on the project duct shall be reused. All unused flex duct take-offs shall be removed back to the main branch line, which will be made leak free using the approved method for high pressure systems.

B.23.10.3. Low pressure secondary lines (supply air ductwork downstream of VAV boxes) shall have a 3 in. w.c. pressure classification with Seal Class A as defined by the SMACNA HVAC Duct Construction Standards Metal and Flexible, latest edition. Flex duct for **low pressure** secondary lines to ceiling diffusers shall not be longer than six feet with a support at the diffuser. All supply diffusers shall have manual balancing dampers at the low pressure take-off on the mixing box discharge duct. The low pressure duct takeoff shall be a spin-fitting or 45° fitting. There shall be adequate support to prevent kinks in the flex duct.

B.23.10.4. Keep flex duct length to a minimum in the corridor ceiling from the **high pressure** branch main into the suite. **The take-off from the high pressure branch main shall use a round 45° fitting only.** Engineer shall field verify that the flex-duct sizes will fit in the corridor ceiling space. Support shall consist of a one-inch band attached to slab as shown in **Appendix B-XIV**.

B.23.10.5. Duct Identification: Install duct markers with permanent adhesive on air ducts in the following color codes.

- Green background white lettering with air flow direction arrows: for cold-air supply ducts.
- Yellow background black lettering with air flow direction arrows: for hot-air supply ducts.
- Blue background white lettering with air flow direction arrows: for return air ducts.
- Blue background white lettering with air flow direction arrows: for outdoor air ducts.
- Blue background white lettering with air flow direction arrows: for exhaust air ducts.
- ASME A13.1 Colors and Designs: for hazardous materials exhaust.
- Letter size: minimum 0.75 inch for name of duct and units

B.23.10.6. The contractor shall provide tapered transitions at the connections of branch ducts to main ducts. Refer to the transition diagrams in **Appendix B-XX**.

B.23.10.7. Engineer shall provide section views of congested ceiling spaces.

B.23.11. HPAC Dual Duct System

The existing High Pressure Air Conditioning system (HPAC) was built in 1959. All the HPACs are located on the 8th floor, except for HPAC-17 and HPAC-18. Maximum design pressure on the 8th floor is 7 inches water gage (WG) in both Hot Deck and Cold Deck. Summer Cold Deck supply temperature on a 95°F day is 50°F to 54°F. Summer Hot Deck temperature is between 72° and 75°. Winter Cold Deck temperature is approximately 65°F. Winter Hot Deck temperature is approximately 90°F to 95°F.

All HPAC heating hot water coils are fed from the 9th floor boiler room and have direct digital control (DDC) control valves. All HPAC chilled water coils are fed from the main chillers and have DDC control valves. The HST Building control room has control and monitoring functions over the coils. The HPACs use a Building Automation System (BAS) that is a Honeywell Niagara Tridium System.

All 8th floor HPAC supply and return fans have variable frequency drives.

Existing dual duct mixing boxes use pneumatic controls and are being phased out with new DDC variable volume mixing boxes. Existing pneumatic dual duct mixing boxes require a 1inch WG static air pressure at the inlet.

Suites with HPAC systems have existing low pressure steam gravity convectors under windows. These are functional and activated during the day when the outside air temperature is 32°F or below.

B.23.12. DDC Variable Air Volume Mixing Boxes

B.23.12.1. For slab-to-slab whole suite renovations, existing mixing boxes shall not be re-used. If the boxes were installed less than 5 years ago (FMS shall be consulted if installation date is uncertain) and are of the VAV type with pneumatic controls, they are to be turned over to DOS. Refer to Guidelines for Dual Duct Conversion (DDC Guidelines) from Pneumatic to Direct Digital VAV Control for New Construction and Renovations in **Appendix B-XXI** for more information. Also found on ProjNet/RPM Portal/Collection Area for Standards and Guidelines/DOS Standards and Guidelines. Mechanical designs shall use the DDC guidelines when four mixing boxes or more are to be replaced at a time.

B.23.12.2. Special attention needs to be given to the height of the mixing boxes where plenum height is restricted. Mixing boxes **shall not** be equipped with perforated mixing plates, which tend to clog and therefore reduce air flow. No mixing box shall be installed smaller than a No. 4. VAV box selection (inlet size) shall be based on a maximum air flow of 85% of the manufacturer's maximum published airflow at 1.0 inch WG inlet static pressure. Contractor shall ensure that there is adequate access to mixing boxes for working on actuators and the inside of mixing boxes, as well as for removing old mixing boxes, and installing new mixing boxes. Where the ceiling is gypsum board, contractor will install access panels of sufficient size, number and location to allow for access to required work.

B.23.12.3. The HVAC contractor shall verify that existing inlet air pressure is sufficient before installing and balancing mixing boxes. A minimum static pressure of **1.0 inch WG** shall be present at each cold and hot main branch in the main corridor outside a typical suite. The design engineer shall add this requirement to the documents.

B.23.12.4. For minor renovations (such as slab-to-ceiling, with minimal work being done in the ceiling), all existing dual duct mixing boxes that remain shall be assessed to determine if they

SECTION B HST BUILDING STANDARDS

are under or over 5 years of age. If the boxes are less than 5 years old, they shall be cleaned and calibrated by the HVAC contractor. Assessment is to be provided to RPM and FMS for DOS records. Clean and calibrate all government supplied used mixing boxes. Calibrate all reused thermostats. Any box considered for reuse must have the characteristic of a new box specified here, including damper leakage rate, air flow probe capability, etc.

B.23.12.5. Mixing Box Labeling: Provide a 3/8" marker matching the box number on the mechanical drawings, black number on clear background, located below each mixing box on the ceiling T-bar grid. Install mixing box markers with permanent adhesive on boxes in the following color codes.

- a. Green: For Cold Deck.
- b. Yellow: For Hot Deck.

B.23.12.6. Damper Linkage Labeling: Label damper linkage on mixing boxes (open) and (closed) positions with permanent adhesive markers.

B.23.12.7. The basis of design for pneumatic VAV dual duct mixing boxes is Price Industries. Minimum mixed air flow shall be set at 30% of design air flow. Hot deck maximum air flow should be less than the maximum cold deck for internal offices. Internal offices usually need cooling year round. This is for historical reference only. Pneumatic VAV boxes shall be replaced with DDC VAV boxes where possible.

B.23.12.8. The basis of design for DDC VAV dual duct mixing boxes is Price Industries, Nailor Industries, Inc, or Krueger. The DDC controller on the box shall be Honeywell BACnet VAV Controller with Actuator Model PVB4022AS. The suites' DDC mixing boxes will interface with a Honeywell JACE located on the HST Building's backbone or as directed by DOS. Check with DOS for this interface requirement. The backbone is part of the Honeywell Tridium BAS. Hot Deck maximum air flow may be set at less than Cold Deck maximum air flow, at the designer's option. Internal offices usually need cooling year round and minimal hot air. Minimizing the air flow to save fan horsepower is encouraged, and also reduction of the mixing of hot and cold air flows during extremes of winter and summer. Minimum mixed air flow shall be set in the Sequence of Control for the DDC Mixing Boxes.

B.23.12.9. In addition to meeting graphics standards set out in the existing RPM dual duct boxes, provide a system of floor plan graphics that allows the operator to drill down from an HST overview floor plan to specific zone floor plans. The zone floor plans shall show walls, box locations and rooms served as well as box numbers and room temperatures. Upon clicking on the room, the graphic showing that box with all of its details shall be displayed. The room temperatures on the floor plans shall turn red if more than 2 deg above the effective cooling setpoint or 2 deg below the effective heating setpoint. Effective setpoint is the value the box is actually controlling to currently. The contractor shall submit graphic floor plan examples for approval before starting work.

B.23.12.10. Mixing Box Minimum Requirements:

1. The manufacturer's boxes shall be certified by AHRI Standard 880 for VAV terminal units.
2. The box casing shall be 22-gage zinc coated steel.
3. Mixing boxes shall have low noise output properties comparable to the Price Industries series DDS box.
4. Mixing boxes shall have no internal fibrous insulation. Insulation shall be 1 inch thick smooth surface, polyolefin, closed-cell foam insulation.
5. Mixing boxes shall have no internal air baffles which may clog.
6. Mixing boxes shall have very low box damper and casing leakage ratings (less than 7 CFM at 6 inch wg for an 8 inch box).



7. The mixing box physical size shall not be excessively large due to restricted ceiling space (equal or smaller than the Price industries series DDS box).
8. The minimum mixing box size shall be a 4-inch diameter inlet.
9. Mixing boxes must be properly sized for the required CFM at 1 inch wg inlet static pressure.
10. Mixing boxes shall be selected to be within the CFM range specified by the manufacturer for the design flow required - both for the maximum and minimum flow CFM (30% of maximum).
11. Provide an air flow probe in the supply air duct at the box outlet.
12. The air flow probe shall average and amplify the velocity pressure at least 2 times for low flow reading capability.
13. The air flow probe CFM accuracy shall be within +/- 5% at minimum flow.
14. The mixing box sizing must allow the air flow probe to be capable of accurately reading low air velocities encountered in minimum air flow.
15. The air flow probe in box outlet shall be accessible for service.
16. Air flow probes are not required in hot or cold inlets.
17. Cold and hot deck dampers shall seal tightly utilizing high quality neoprene seals.
18. Cold and hot deck inlet dampers shall be round, not rectangular
19. Cold and hot deck dampers shall have independent 1/2" damper shafts and controller mounting plates for proper mounting of the Honeywell Spyder VAV controller.
20. The control enclosure shall not be included on the box to conserve space and to provide improved service access to the controllers.
21. No controls shall be provided with the box from the factory. Controls shall be mounted on-site.
22. Sensors and controller combinations shall be compatible and shall be tested immediately at the time of mounting. A commissioning checklist shall be completed and submitted to the department of state (dos) upon installation.
23. The DDC controller shall be BACnet ready for the building's existing Honeywell Niagara Tridium BAS.
24. Provide wiring diagrams and control specifications typical for each box.

B.23.13. Mixing Box Sizes

The existing dual-duct mixing box schedule is as follows (with minimum entering static pressure of 1.0 inch WG):

Size	Maximum Airflow Range	Size	Maximum Airflow Range
4	0-155 CFM	9	765-980 CFM
5	155-275 CFM	10	980-1275 CFM
6	275-380 CFM	12	1275-1750 CFM
7	380-550 CFM	14	1750-2330 CFM
8	550-765 CFM	16	2330-3130 CFM

New and reused existing dual duct box sizes must be within the VAV manufacturer's recommended CFM range and velocity pressure must not fall below 0.02 inch WG minimum in order to assure the controller can read minimum airflow. VAV and dual duct damper leakage must be less than 2% of terminal rated airflow at 6 inch WG.

B.23.14. Induction Boxes – Marshall Wing

B.23.14.1. Induction boxes are utilized for air distribution to the space. The induction units utilize aluminum high efficiency primary air nozzles with a fully sealed high pressure chamber that functions as a jet pump to create negative pressure in the unit and induce secondary air. The nozzle is typically open and modulates in response to space temperature requirements. Induction units shall be equipped as follows:

SECTION B HST BUILDING STANDARDS

- 22-gauge galvanized steel casing
- Aluminum high efficiency primary air nozzle with permanently lubricated bearings.
- Leakage at shut-off position is less than 2% at 6" WG.
- Induction damper with permanently lubricated bearings.
- Hot water reheat coil with copper tubing and aluminum fins, leak tested to 300 psi and burst tested to 450 psi.
- Pressure independent DOC digital controllers with integral damper operators, transformer and primary air sensors. Controls shall maintain air flow at +/- 5% maximum primary airflow.

B.23.14.2. Contractor shall verify that existing inlet air pressure is sufficient before installing mixing boxes. A minimum pressure of 1" WG shall be present at the inlet of the induction box.

B.23.14.3. The following standard box sizes shall be utilized. The contractor will balance the system to meet design requirements at the completion of the project.

TAG	UNIT SIZE	MIN Primary Air	MAX Primary Air [CFM]
A	6	100	250
B	6	150	375
C	8	230	575
D	10	400	1000

B.23.15. Cooling Zone Sizes

B.23.15.1. For offices, maximum cooling zone shall be 600 SF.

B.23.15.2. For open work areas, maximum cooling size shall be 800 SF

B.23.16. Thermostats

B.23.16.1. All pneumatic thermostats shall be "Johnson T-4000 Series" or Siemens series where applicable. In cases where more than one mixing box serves a particular zone, mixing box may be controlled by one thermostat. This is for historical reference only.

B.23.16.2. All DDC thermostats shall be "Honeywell Zio Sylk Enabled model number TR-71"; one thermostat per box.

B.23.16.3. No more than two exterior offices or three interior offices shall be served by one box with one thermostat.

B.23.16.4. Lock boxes shall be provided for thermostats located in open office space. Keys shall be provided to A/OPR/FMS.

B.23.17. Pneumatic Control Lines

B.23.17.1. Pneumatic control lines shall be copper. Up to six feet of polyurethane tubing is allowed for connection to the thermostat and mixing box control. Copper pneumatic lines shall be attached to the ceiling slab. During demolition phase, all unused pneumatic control tubing shall be removed back as close as possible to the source and capped using brass compression fittings and brass plugs. Pneumatic boxes are being phased out of use at the HST Building. All new mixing boxes shall be DDC VAV boxes. This information is for reference to existing boxes.

B.23.18. Dual Duct Mixing Box and Fan Coil System Testing and Balancing (TAB) Requirements

B.23.18.1. TAB Report: The TAB report shall, by using the same box name tags as shown on the drawings, record the maximum heating mode air flow, the maximum cooling mode air flow, and the minimum air flow (mixed hot and cold flow) when the thermostat is satisfied. Minimum air flow shall be 30% (adjustable) of maximum cooling air.

In the TAB report for the boxes the TAB contractor shall test and verify the function of each box in the cooling mode and heating mode by recording the set-point temperature in each mode and the corresponding diffuser discharge temperature in each mode.

Note the month day and year of balancing on each data page of the report.

The TAB Contractor shall report any discrepancies, air leaks in the ductwork or mixing boxes, and damage to any mixing box.

B.23.18.2 Receivables for dual duct mixing box system:

TAB shall be performed by an independent TAB balancing firm not affiliated with the installing contractor and is certified by AABC or NEEB. The TAB report shall, by using the same box ID number and Maximo number as shown on the drawings and spreadsheet, record the following:

- 1) Balancing of system shall consist of two parts to the TAB Report. One part shall be with hot deck 100% open and cold deck 100% closed.
- 2) Second part of the report shall be with cold deck 100% open and hot deck 100% closed.
- 3) TAB contractor shall use the tags on the mechanical drawings and spreadsheets to identify the mixing boxes in the report. No other method shall be used. Include the design CFM for each diffuser, as shown on the drawings, in the report.
- 4) Each TAB report shall have the day of the balancing, the outdoor temperature and the static pressure of the hot and cold mains, normally located in the corridor, recorded. If the static pressure of a main is less than 1.5" WG, do not proceed with the work and contact the project manager.
- 5) The DDC room sensor calibration shall be tested for each mixing box and the date recorded. The function of each mixing box shall be tested. When the thermostat is set to full cooling the hot deck damper shall be verified to be fully closed and the temperature leaving the air supply device shall be within 2 F degrees of the main cold deck temperature. When the thermostat is set to full heat the cold deck shall be verified to be fully closed and the temperature leaving the air supply device shall be within 2 F degrees of the main hot deck temperature. In the blended minimum air flow mode (when the room temperature is between the cooling and heating setpoints), the hot deck damper will open slowly to maintain a blended supply air temperature based on a reset schedule. The cold deck damper sensing increased air flow will throttle back to maintain minimum air flow. Record all supply air and room temperature readings in each mode and report whether the box has passed or failed or if there are any indications that dampers are not fully sealed. Supply air temperature DDC sensor must be no more than 1 deg from measured.
- 6) Record final measured air flow in minimum air flow and confirm the reading is stable.
- 7) Measure and record air flow when both the heat and cool dampers are commanded fully closed. Report cases for correction where airflow is greater than leakage rate specified above.
- 8) Once air flow is properly calibrated, enter the final K-factor calibration number in the balancing report.
- 9) TAB contractor shall report any discrepancies, air leaks in the ductwork or mixing boxes, and damage to any mixing box. When all reported corrections have been made, TAB contractor shall return to test and verify measurements are within acceptable parameters and report to FMS.
- 10) Verify and report that maximo numbers have been permanently applied to the box and to the ceiling grid below the box. Verify the Maximo and ID number has been permanently applied to

SECTION B HST BUILDING STANDARDS

the room sensor as done for HPAC 15/16 box replacements installed by Combustioneer Corp. in 2017.

11) Note the month, day and year of balancing on each data page of the report.

12) In addition, include the following on a balancing report in a searchable pdf

- A. Round duct inlet sizes at automatic dampers
- B. Static pressure entering (cold and hot deck)
- C. Design maximum cfm of all attached registers (from mechanical drawings or as approved)
- D. Entered and measure minimum air flow setting (percent of maximum). Initial recommended setting is 30%.
- E. Report if ductwork, box numbering or box location is not correct per mechanical drawings.
- F. Measure and record with an approved and NIST certified flow hood the air flow in maximum cooling, maximum heating and blended minimum air flow.
- G. Note the final calibration number entered to achieve design maximum flow within 5%.
- H. Report any mechanical or control problems found.
- I. While balancing individual registers is not in this scope, report air flow deviations from design that are greater than +/- 15%

B.23.19. Supply Diffusers

24" x 24" lay-in ceiling diffusers shall be perforated steel with flush face, Titus Model PAS or equal. The recommended linear diffuser is the Titus Nova series Plenum Slot Diffuser.

B.23.20. Return Air

Return air shall be directed to the main returns in the corridors. The contractor shall provide return air grilles that match the ceiling pattern of the corridor and suite.

B.23.20.1. Since the HST Building ceiling plenums are return air path, all wiring and cable shall be plenum-rated.

B.23.20.2. The contractor shall verify that there are adequate return air paths from the suite to the corridor plenum. The minimum unobstructed area for air return can be calculated by dividing the total CFM for the suite, by an air velocity of 400 FPM, to obtain the square foot area.

B.23.20.3. Lighting fixtures shall have return air return slots.

B.23.21. Convectors

B.23.21.1. FMS must be contacted after demolition is complete and before new work begins to allow inspection of the old convectors.

B.23.21.2. During all suite renovations, aluminum heat reflectors shall be installed between the wall and radiator.

B.23.21.3. Access to the convectors under the windows in the HST Building shall be provided to allow for the maintenance of these units. Fixed furniture shall be located a minimum of 10" from the convectors. Fixed systems furniture plans that are located closer than 10" shall have open panels to provide access.

B.23.22. Mini-Commissioning

For all slab-to-slab renovations, a mini-commissioning of the suite HVAC system shall be performed and witnessed by representatives of RPM, FMS, and GSA. A mini-commissioning checklist is included in **Appendix B-XV**. The contractor shall give notice 48 hours in advance of all inspections. The contractor shall submit to FMS the mechanical and electrical sections of all owners' manuals, equipment serial numbers and model numbers, and all other relevant documentation.

B.23.23. Basis of Design- Calculations

B.23.23.1. HVAC calculations need to take into account the presence of both the existing window film and the building standard window blinds. See Sections B.8.10.2: Window Film and B.12.1: Blinds for more information.

B.23.23.2. Equipment load for a standard two-computer workstation is 105 watts. Equipment load for a standard single-computer workstation is 70 watts. The A/E shall verify actual equipment loads in their site survey.

B.23.24. Pumps

There shall be no packing seals on water pumps. Only mechanical seals are approved.

B.23.25. Control Dampers and Duct Design

B.23.25.1. All modulating automating control dampers and large manual balancing dampers shall be opposed blade dampers (OBD). Parallel blade dampers shall not be used for modulating control of air flow.

B.23.25.2. There shall be no 90 degree duct elbows within 8 feet of each other, i.e. no 90 degree offsets. If space limitations require back to back 90 degree elbows, then there shall be tails (i.e. strips of sheet metal) coming off each turning vane to eliminate the spin of the air. Both elbows shall have the tails on their vanes, to prevent the mis-location of the leading elbow by the contractor. 45 degree or less duct offsets are allowable.

B.23.26. Pipe Design

B.23.26.1. Changes in pipe size shall be with factory manufactured reducers only; bushings and flanges shall not be used. Pipe tees and elbows shall be factory manufactured only; mitered elbows and tees shall not be used.

B.23.26.2. All control valves shall be on the outlet side of the coil.

B.23.26.3. Copper, brass and bronze material shall not contact steel or iron material. Dielectric nipples shall be used. Dielectric unions are not allowed. If a union is required, it shall be on the steel or copper side of the dielectric nipple.

B.23.26.4. There shall be no tight 90 degree offsets in water and gas mains and secondary branch piping.

B.23.26.5. Specialized pipe fittings such as "Weldolets" shall be used on steel pipe that is 2-1/2 inches and larger. Pipe tees shall be used on copper pipe and steel pipe smaller than 2-1/2 inches.

B.23.26.6. Pressure and temperature reading devices such as "Pete's Plugs" shall not be used for maintenance reasons. Use a reliable cock for gage connections.

B.23.26.7. Space shall be allowed for coil removal on air handling units and if the coil is removed from the same side as the piping then the piping itself shall easily removable.

B.23.27. Piping

B.23.27.1. Standard Weight Carbon Steel (Std. Wt. C.S.) Piping 1/4" and 3/8": Schedule 80 carbon steel, seamless; ASTM A-106, Grade A or B. C.23.11 .1.2 Piping 1/2" and larger: Schedule 40 carbon steel, seamless; ASTM A-53, Grade A or B. 2" and smaller: 150 lb. malleable iron threaded; ASTM

SECTION B HST BUILDING STANDARDS

A-197. Fittings 2-1/2" and larger: Schedule 40 carbon steel, butt weld type; ASTM A-234-WPB.

B.23.27.2. Flanges: Slip-on or weld neck type, 150 lb. rated forged carbon steel, with 1/16" raised face, bored to match the mating pipe inside diameter.; ASTM A-181, Grade 2, or ASTM A-105, Grade 2. Flanges: Screwed ANSI B16.1, Class 125 and 250. C.23.11.2. Flanges: Cast bronze, solder connection, in accord with ASTM B62, ANSI B16.24, 125 lbs.

B.23.27.3. Type L Copper Piping: Hard Drawn Copper Tubing: ANSI H23.1, ASTM B88. Fittings: Wrought copper, ANSI B16.22. Solder: 95-5 (tin-antimony) solder. Unions: Wrought copper, solder ends, Class 150.

B.23.27.4. Dielectric nipples shall be used to connect copper to steel pipe and shall have metal connections on each end threaded to match adjacent piping. Metal cents shall be separated by nylon insulator to prevent current flow between dissimilar metals. Unions shall be suitable for the required system operating temperatures and pressures.

B.23.28. Piping Insulation

B.23.28.1. Chilled water, condenser water (where used for free cooling), heating water, and condensate drain piping shall be insulated. Insulation shall be UL classified and have minimum "K" value of 0.21 at mean 75 degree F and flame spread / smoke developed rating not to exceed 25 / 50 respectively. Pipe insulation shall be one of the following two types:

- Rigid Fiberglass: Resin bonded fibrous glass, flame retardant, factory applied all service jacket vapor barrier with self-sealing pressure sensitive lap joints, molded to accommodate pipe, maximum vapor permeance of .02 perm/in. and a puncture resistance of 50 units, minimum density 4.0 lb/cf, maximum thermal conductivity of not more than 0.23 Btu-in./h/sq.ft./deg F at 75 deg F mean temperature. Based on Knauf Pipe Insulation.
- Closed Cell Elastomeric Small Pipe Sizes up to 4 Inches: Flexible, elastomeric, closed cellular, tubular molded to accommodate piping, smooth outer surface suitable for painting with vinyl lacquer type coating, water resistant, non-absorbent, ozone resistant, minimum density of 6 lb/cf, maximum conductivity per 1 inch thickness of .27 at 75° F mean temperature requires field applied vinyl lacquer coating. Fitting fabricated from insulation sections or sheets.
- Insulation thickness:
 1. Chilled water – 1" thickness.
 2. Condenser water (where used for free cooling) – 1" thickness.
 3. Heating water:
 - a. 1 1/2" and smaller – 1 1/2" thickness.
 - b. 2" and larger – 2" thickness.
 4. Condensate drain – 1/2" thickness.

B.23.28.2. Insulation shall be applied to the following services as follows:

- Chilled water piping: Utilize fiberglass type pipe insulation with an all service jacket and vapor barrier with positive vapor seal for condensation control. Flexible elastomeric insulation may be utilized for pipe run outs 1-inch and smaller.
- Hot water piping: Utilize fiberglass type pipe insulation with all service jacket.
- Condensate piping: Utilize fiberglass type pipe insulation with all service jacket, and vapor barrier with positive vapor seal for condensation control. Flexible elastomeric insulation may be utilized for piping 1 inch and smaller.

B.23.28.3. Accessories Covering Insulation:

(b) (6)

- Aluminum Pipe Jacket: 0.016" thick (28 ga.) embossed aluminum sized to provide a minimum 2" lap joint both longitudinal and circumferentially, minimum 3/4 inch x 0.015 inch thick (30 ga.) draw bands. Apply aluminum jacket over all exposed pipe insulation located outdoors (may also be used in lieu of PVC jacket as specified below for indoor use).
- PVC jackets and fitting covers used with insulation for pipe, elbows, tees, couplings, 25/50 flame/smoke ratings, suitable for temperatures to 500° F. Provide on all interior exposed pipe in mechanical rooms that is lower than a height of 6'-0" above finished floor.

B.23.28.4. Pipe Markers and Valve Tags: Use self-sticking vinyl pipe markers with directional flow arrows for all piping. Height of lettering on markers to be based on size of pipe that it will be installed on. Use 1-1/2" diameter brass valve tags with black filled text and brass chain to mark all valves.

B.23.29. Mechanical Identification

Identification of materials and equipment for mechanical systems shall follow the contract documents and the American National Standards Industry, Inc. (ANSI) Publication A13.1 Scheme for Identification of Piping Systems. Typical color schemes are as follows:

Duct Work Identification

DESIGNATION TYPE	BACKGROUND COLOR	LETTER COLOR
Supply Air	Blue	White
Return Air	Green	Black
Relief Air	Green	Black
Exhaust	Yellow	Black

Pipe Identification

DESIGNATION TYPE	BACKGROUND COLOR	LETTER COLOR
Condensed Water	Green	White
Chilled Water	Green	White
Domestic Cold Water	Green	White
Domestic Hot Water	Yellow	Black
Heating Hot Water	Yellow	Black
Refrigerant	Yellow	Black
Automatic Sprinkler	Red	White
Above Ground Vents and Drainage	Green	White
Pumped Drainage	Green	White
Roof Conductors and Downspouts	Green	White
Pumped Storm	Green	White

SECTION B HST BUILDING STANDARDS

B.24. RESERVED – Section under Development by CSI

B.25. INTEGRATED AUTOMATION

B.26. ELECTRICAL

B.26.1. Core Drilling of Floor Slab

Due to the existence of under-floor duct and/or electrical conduit it is recommended that the general contractor use ground-penetrating radar (GPR) on the floor slab prior to any core drilling to avoid drilling through these. (See discussion under "A.3.2: Trenching, Core Boring, Saw Cutting and Hammer Slab" regarding requirements for X-raying.)

B.26.2. Wiring of Systems Furniture

B.26.2.1. Underfloor Duct: The existing underfloor Walker Duct system is to be abandoned, sealed, and any wiring in it removed back to the service panel. If Walker Duct is currently in use, it can only stay in service until the next renovation.

B.26.3. Power Outages

To ensure that RPM projects are coordinated with any planned outages, RPM has been added to the notification list for power outages in the HST Building.

B.26.4. Inspections

All electrical new and renovation installations shall be inspected by Facilities Management Services (FMS). These include a rough-in inspection of the walls and the ceiling, and a final inspection. Inspections must be scheduled at least 48 hours in advance.

B.26.5. Lock-out/Tag-out

All electrical panels being worked on and the equipment feeding them shall be "locked out and tagged-out" until the completion of the project. The panels are locked to prevent access, and so identified by placement of a tag.

B.27. TELECOMMUNICATIONS

See **Section A.27 Communications** for details. Refer to **Appendix B-I** for information about working around transite in metal panel ceilings at the HST Building during surveys, demolition, construction, and maintenance.

B.28. SECURITY

See **Section A.28 Security** for details. In order to maintain a uniform appearance in the corridors, heights of the corridor card readers and Aiphones junction boxes shall be governed by **Appendices B-III, B-IV, B-V, and B-VI**.

Section A Appendices
Domestic Design Guidelines

(b) (6)



APPENDIX A-I: Renovation Waste Tracking Form

MATERIAL TYPE	Reuse/Salvage	Recycling	Disposal	Destination
Acoustical ceiling tiles				
Asphalt				
Asphalt shingles				
Brick/Masonry/Tile				
Cardboard packaging				
Carpet and Carpet Pad				
Concrete				
Doors				
Drywall				
Fluorescent Lights and Ballast				
Land Clearing Debris (Vegetation, Stumpage, Dirt)				
Office Furnishings				
Metals (Wiring, Conduit, Ceiling Grid, Ductwork, etc.)				
Paint (Through Hazardous Waste Outlets)				
Wood				
Plastic Film (Sheeting, Shrink wrap, Packaging)				
Window Glass				
Wood				
Other - List				

(b) (6)

SECTION A APPENDICES

APPENDIX A-II: No Longer Applicable

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APPENDIX A-III: No Longer Applicable

SECTION A APPENDICES

APPENDIX A-IV: Telecommunications Installation Best Practices

1	Contractor shall design and install all cable pathway components so that each install cable run does not exceed a maximum of 295 feet (90 meters), and with patch cords, the entire channel does not exceed 328 feet (100 meters).
2	Contractor shall maintain the twists of the pairs as close as possible to the point of termination, or no more than 0.5" (one half inch) untwisted.
3	Contractor shall not remove any more than 1" of cable jacket when terminating Category 6 UTP at any point within the cable system.
4	Contractor shall install all UTP cables making only gradual bends in the cable where necessary to maintain the minimum bend radius of 4 times the cable diameter or approximately 1" radius. Contractor shall never exceed manufactures recommendations.
5	Contractor shall not allow the cable to be sharply bent, twisted, or kinked at any time. This can cause permanent damage to the geometry of the cable and cause transmission failures.
6	Contractor shall dress all cables neatly with Velcro cable ties, using low to moderate pressure.
7	At no time shall the contractor use tie wraps or Velcro in such a manner that causes disfigurement to the cable.
8	Contractor shall always use grommets to protect cable when passing through metal studs or anything that can possibly cause damage.
9	Contractor shall minimize the use of force when pulling cable. Not to exceed a maximum of 25 lb. (pounds of force). Contractor shall never exceed manufactures recommendations.
10	Contractor shall not use excessive force when pulling cable. Contractor shall not exceed manufactures published installation requirements.
11	Contractor shall use (UL approved for use) cable pulling lubricant, as needed, for cable runs that may otherwise require great force to install.
12	Contractor shall not use any lubricant not specifically designed for, and UL approved for UTP network cable pulling as they can infiltrate the cable jacket, causing damage to the insulation.
13	Contractor shall install UTP cables maintaining a minimum of 12-inch separation from potential sources of EMI (electrical cables, transformers, light fixtures, etc.) as possible.
14	Contractor shall not install, support or attach cables to electrical conduits, lay cables on electrical fixtures, attach to ceiling grid support wire, or lay on ceiling tiles.
15	Contractor shall independently support all installed cables, using an approved cable support pathway system installed and supported per manufactures recommendations.

APPENDIX A-V: (Reserved for) Video Teleconferencing Standards

Space reserved for forthcoming standards

(b) (6)



NOTES ON CONDUIT INSTALLATION TYPICAL FOR HARD WALL OFFICES

1. CONDUITS SHALL BE PROVIDED WITH PULLPOINTS PLACED AT 100 FT. MAXIMUM INTERVALS, AND PULL-STRINGS ANCHORED AT BOTH ENDS.
2. CONDUITS SHALL HAVE NO MORE THAN 180 DEGREES OF TOTAL BENDS BETWEEN PULL POINTS (BOXES).
3. 1 INCH TRADE SIZE CONDUIT SHALL HAVE A MINIMUM BEND RADIUS OF 6 INCHES.
4. CONDUITS SHALL BE SUPPORTED AT 5 FOOT MAXIMUM INTERVALS ON THE HORIZONTAL RUN.
5. CONDUITS SHALL BE INSTALLED TO WITHIN 12 INCHES OF CABLE TRAY PATHWAY COMPONENT. CONDUIT ENDS SHALL BE EQUIPPED WITH EMT STEEL COMPRESSION-TYPE CONNECTORS WITH INSULATED THROAT AND INSULATED METAL GROUND BUSHINGS. CONDUITS SHALL BE GROUNDED AND BONDED TO CABLE TRAY PATHWAY COMPONENT USING PLENUM RATED #6 STRANDED GREEN JACKETED COPPER GROUND CABLE. CONTRACTOR SHALL NOT USE "SET SCREW TYPE AND OR COUPLERS"
6. LOCATIONS FOR ANY CONDUITS AND JUNCTION BOXES SHALL BE INSTALLED IN PAIRS PER THE FOLLOWING ILLUSTRATED EXAMPLE:
7. CONDUITS AND J-BOXES SHALL BE INSTALLED IN SETS OF TWO (2):
 - (2) X 1 IN. TRADE SIZE FOR COPPER CABLES
 - (1) X DOUBLE-GANG WORK BOX WITH MINIMUM OF (2) 1 INCH KNOCK-OUTS, FITTED WITH A DOUBLE GANG MUD RING ALLOWING FOR A FLUSH WALL FACEPLATE APPLICATION.
 - (1) X 1 IN. TRADE SIZE FOR ALL FIBER CABLES
 - (1) DOUBLE GANG WORK BOX WITH A MINIMUM OF (2) 1 INCH KNOCK-OUTS, FITTED WITH A SINGLE GAND REDUCING MUD RING ALLOWING FOR A FLUSH WALL FACEPLATE APPLICATION.
8. CB-10
WHEN GROUNDING AND BONDING CONDUIT ENDS (PER T001-1, T001-2, AND T001-4) TO CABLE TRAY SYSTEM ONE CB-10 IS REQUIRED PER INSTALLED CONDUIT.

NOTES ON CONDUIT INSTALLATION TYPICAL FOR SYSTEMS FURNITURE:

1. CONDUITS SHALL BE PROVIDED WITH PULLPOINTS PLACED AT 100 FT. MAXIMUM INTERVALS, AND PULL-STRINGS ANCHORED AT BOTH ENDS.
2. CONDUITS SHALL HAVE NO MORE THAN 180 DEGREES OF TOTAL BENDS BETWEEN PULL POINTS (BOXES).
3. 1 INCH TRADE SIZE CONDUIT SHALL HAVE A MINIMUM BEND RADIUS OF 6 INCHES.
4. CONDUITS SHALL BE SUPPORTED AT 5 FOOT MAXIMUM INTERVALS ON THE HORIZONTAL RUN.
5. CONDUITS SHALL BE INSTALLED TO WITHIN 12 INCHES OF CABLE TRAY PATHWAY COMPONENT. CONDUIT ENDS SHALL BE EQUIPPED WITH EMT STEEL COMPRESSION-TYPE CONNECTORS WITH INSULATED THROAT AND INSULATED METAL GROUND BUSHINGS. CONDUITS SHALL BE GROUNDED AND BONDED TO CABLE TRAY PATHWAY COMPONENT USING PLENUM RATED #6 STRANDED GREEN JACKETED COPPER GROUND CABLE. CONTRACTOR SHALL NOT USE "SET SCREW TYPE AND OR COUPLERS"
6. CONDUITS AND J-BOXES SHALL BE INSTALLED IN SETS OF TWO (2) LOCATIONS FOR ANY SYSTEM FURNITURE BASE FEED CONDUITS AND JUNCTION BOXES SHALL BE SITE COORDINATED AND APPROVED BY THE REAL PROPERTY MANAGEMENT INTERIOR DESIGNER AND SHALL BE INSTALLED PER THE FOLLOWING EXAMPLE:

SECTION A APPENDICES

(2) X 1 1/4 IN. TRADE SIZE FOR COPPER CABLES

(1) DOUBLE-GANG WORK BOX WITH A MINIMUM OF (2) 1-1/4 INCH KNOCK-OUTS, FITTED WITH A MUD RING ALLOWING FOR A FLUSH WALL APPLICATION.

1 DOUBLE-GANG METAL SPLIT PLATE WITH PROTECTIVE GROMMET. (PART NUMBER: SEMTRON WP805-2.00L)

(1) X 1 1/4 IN. TRADE SIZE FOR ALL FIBER CABLES

(1) DOUBLE-GANG WORK BOX WITH A MINIMUM OF (2) 1-1/4 INCH KNOCK-OUTS, FITTED WITH A SINGLE GANG REDUCING MUD RING ALLOWING FOR A FLUSH WALL APPLICATION.

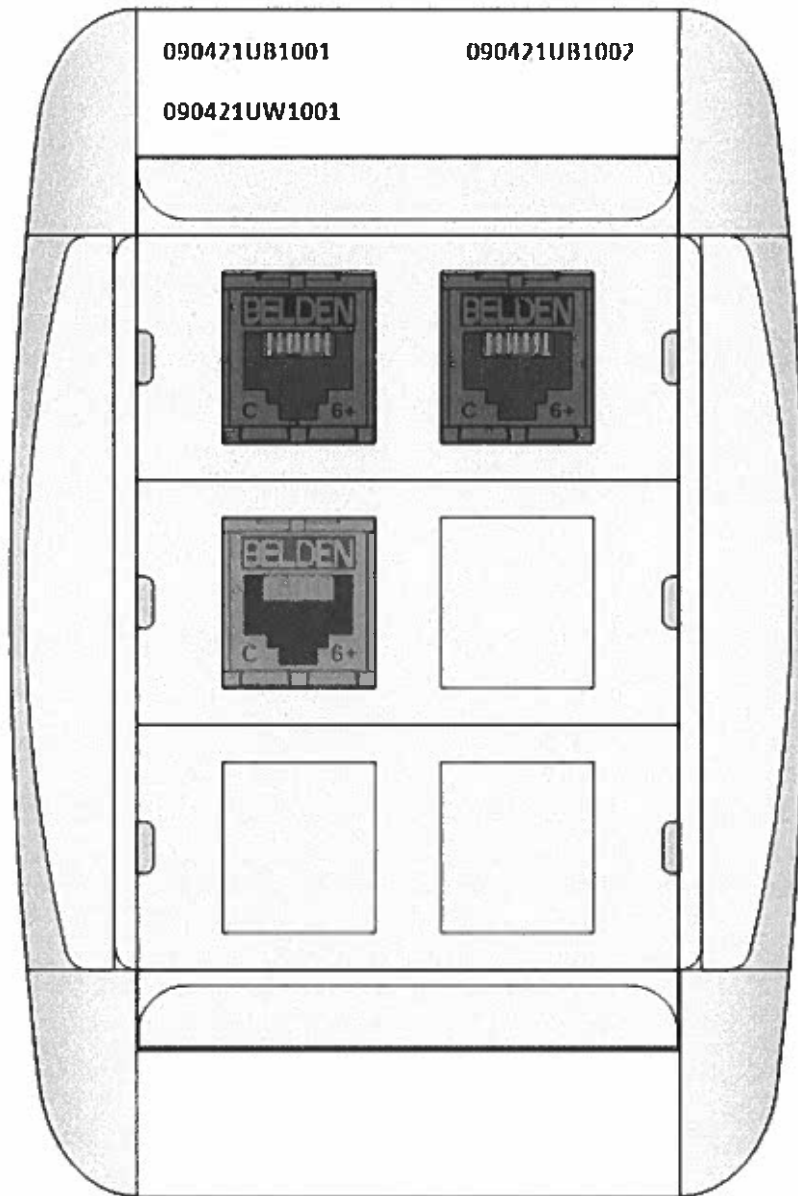
(1) SINGLE-GANG METAL SPLIT PLATE WITH PROTECTIVE GROMMET. (PART NUMBER: SEMTRON WP804-1.500L)

7. CABLES SHALL FEED OUT OF THE WALL AND INTO SYSTEMS FURNITURE PER ILLUSTRATED EXAMPLE OR AS DIRECTED BY THE REAL PROPERTY MANAGEMENT INTERIOR DESIGN PROFESSIONAL OF RECORD.
8. CB-10
WHEN GROUNDING AND BONDING CONDUIT ENDS (PER T001-1, T001-2, AND T001-4) TO CABLE TRAY SYSTEM ONE CB-10 IS REQUIRED PER INSTALLED CONDUIT.

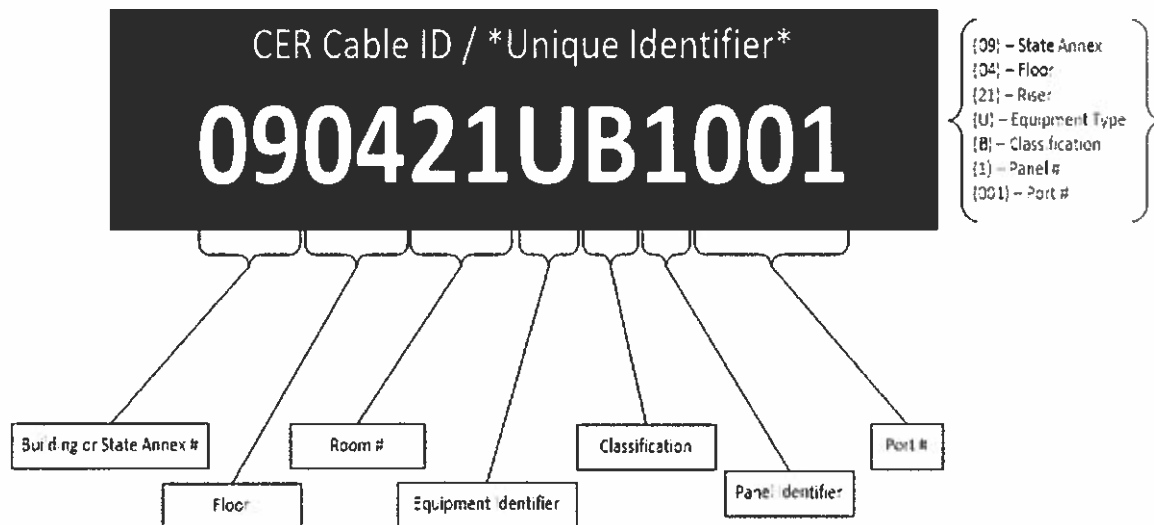
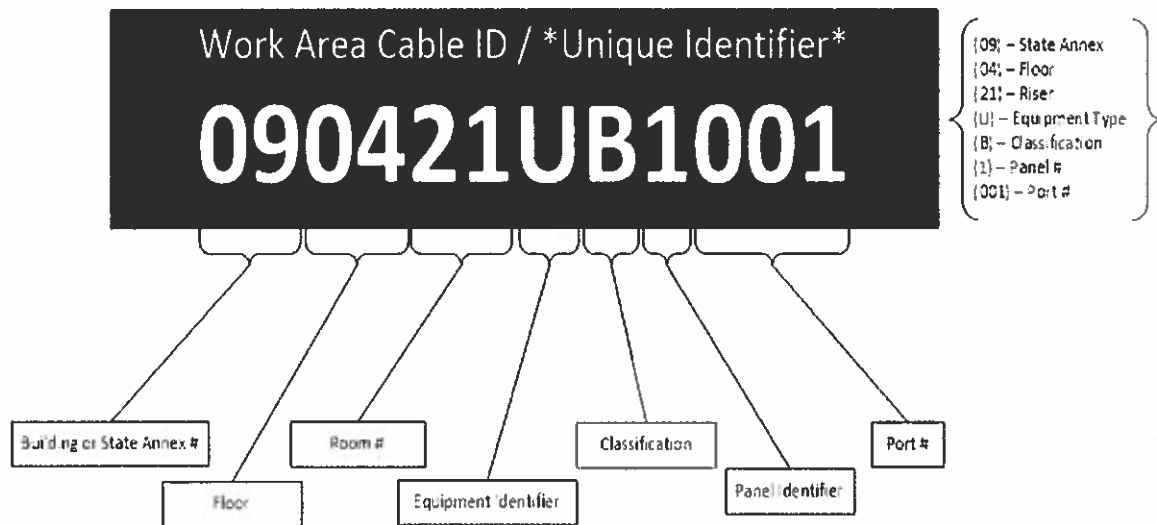
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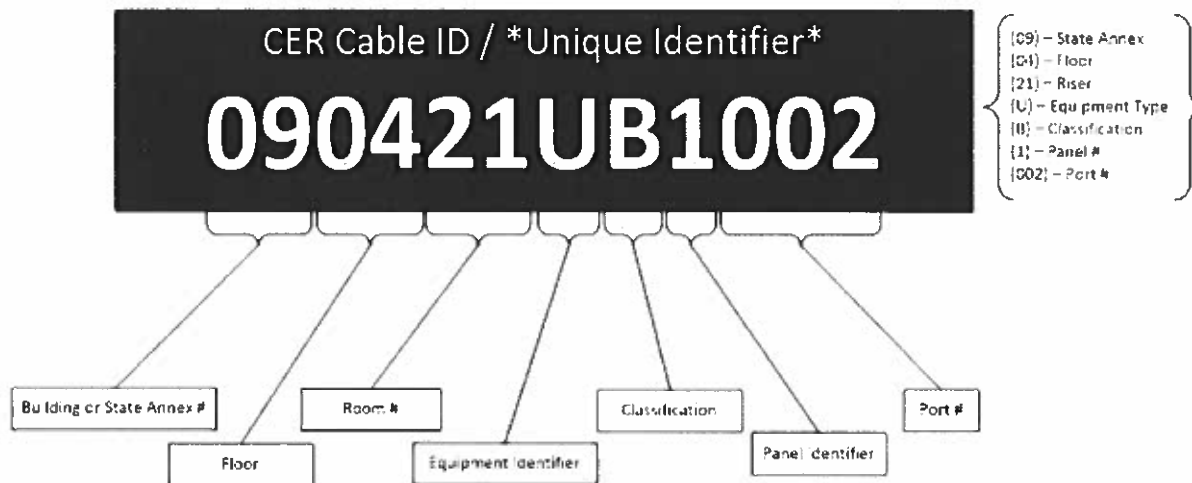
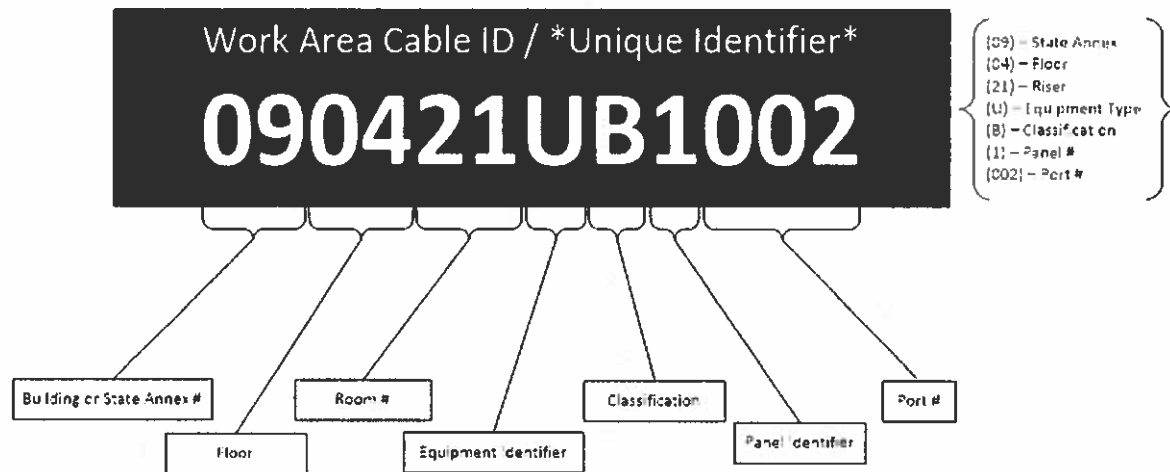


Labelling Instructions

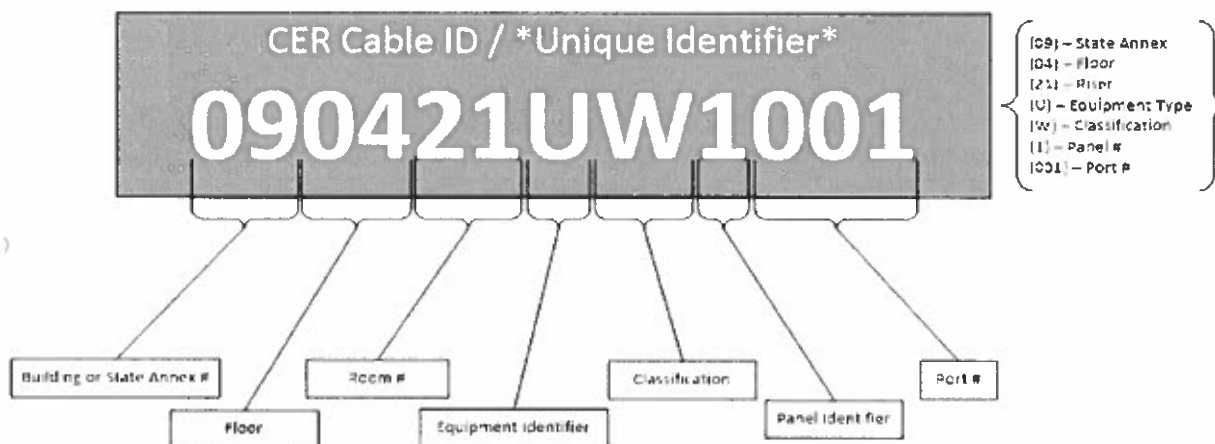
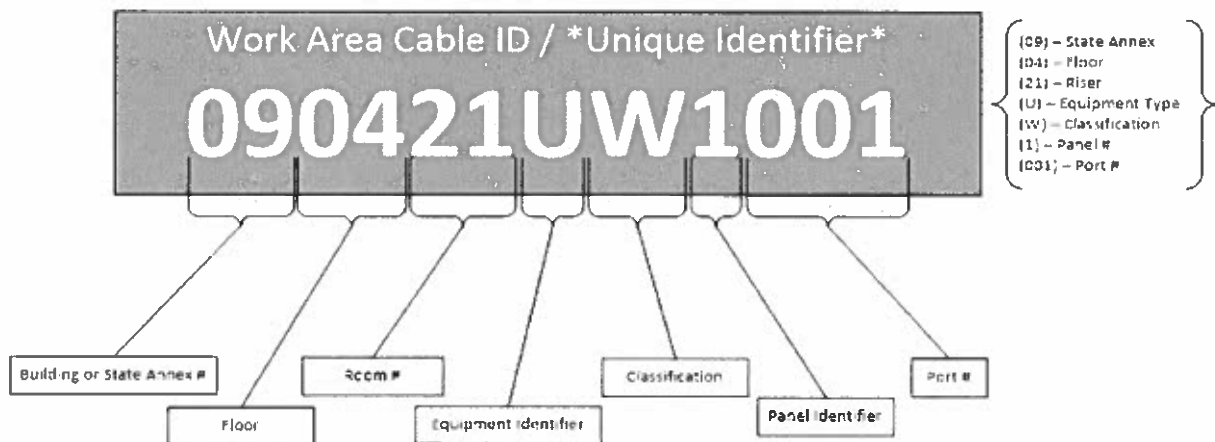


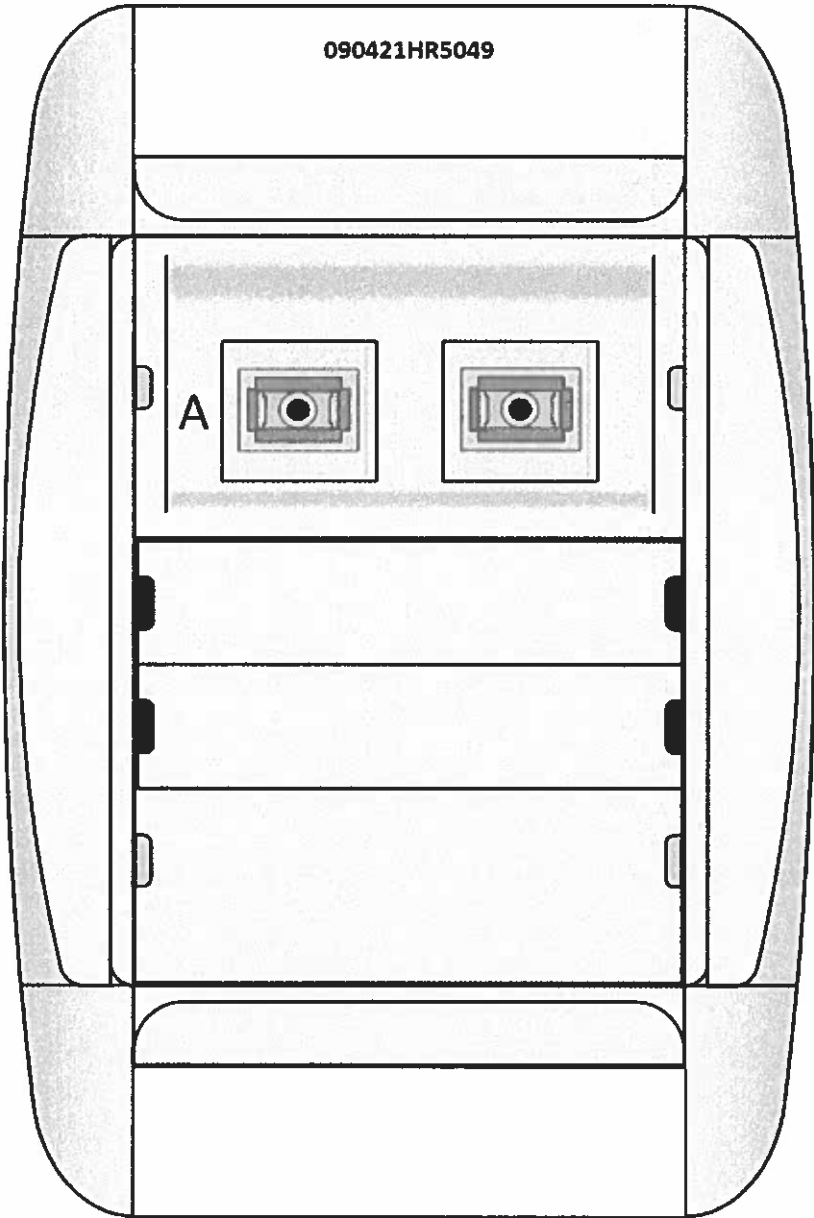
SECTION A APPENDICES





SECTION A APPENDICES

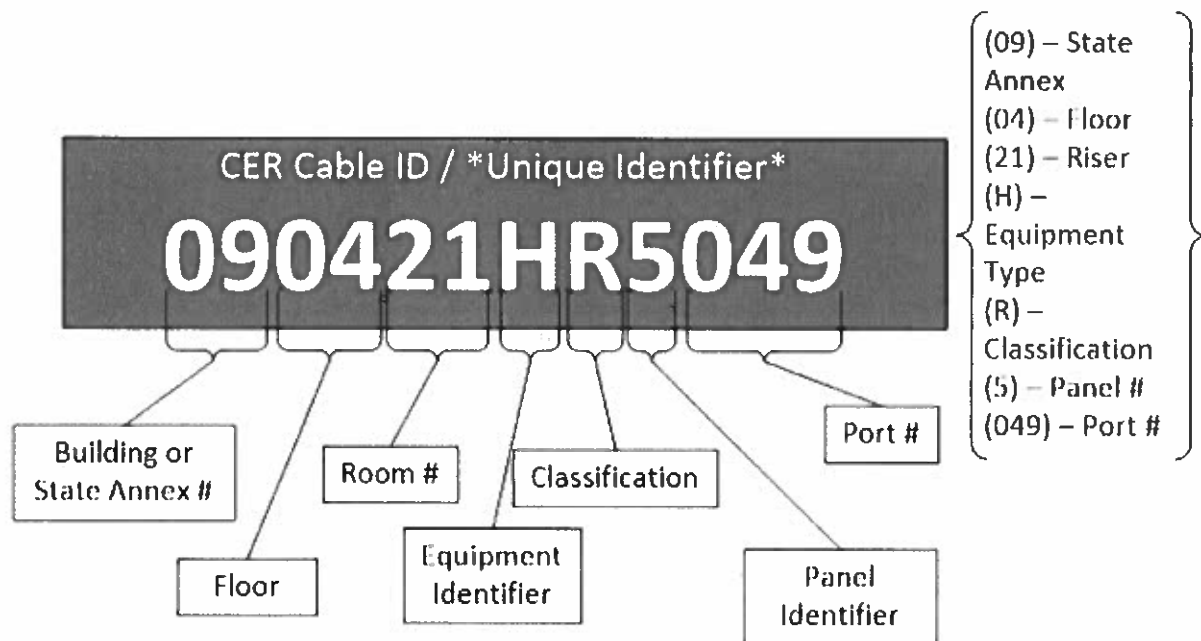
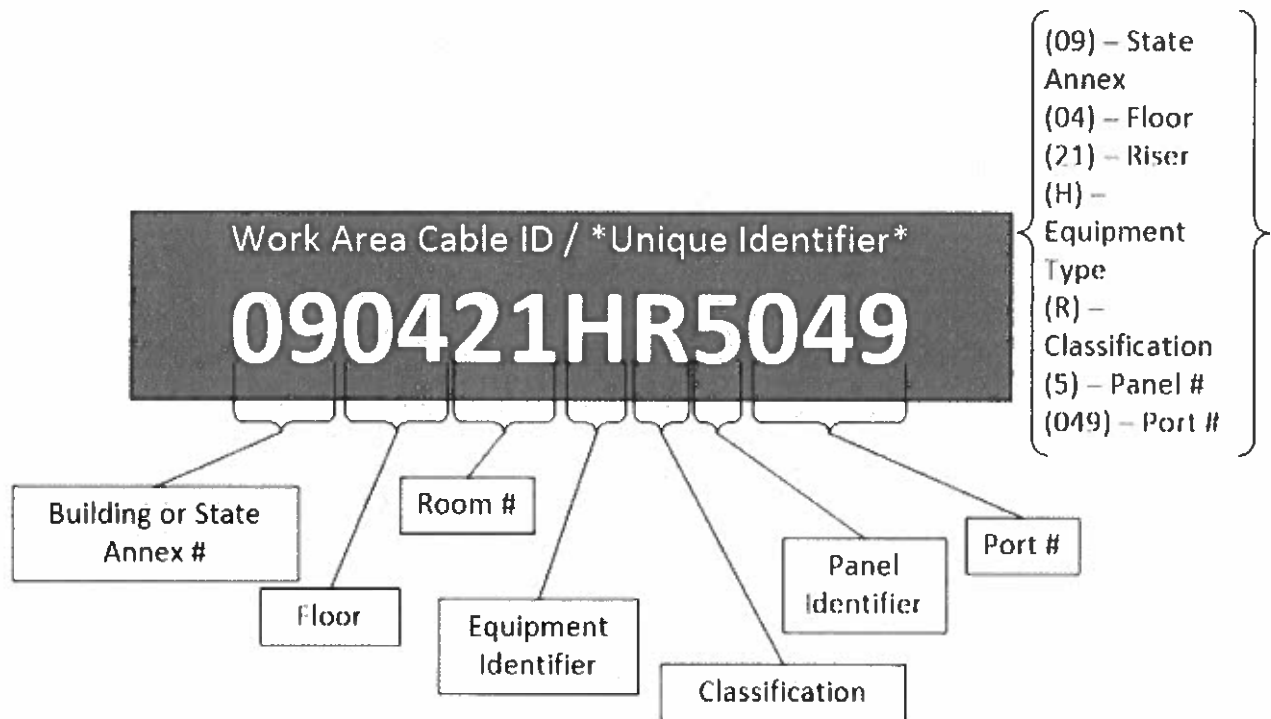




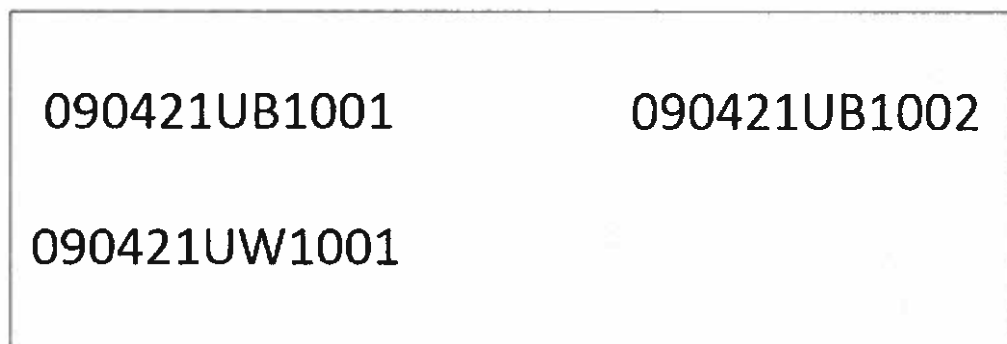
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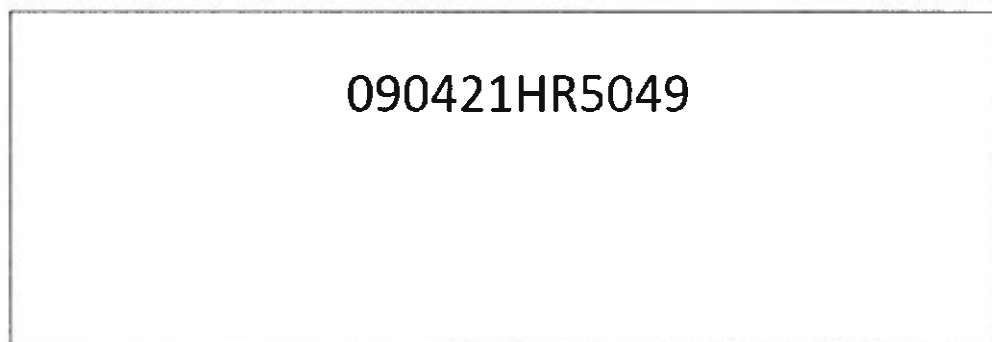
SECTION A APPENDICES



Standardized 'One-Wire' Work Area Outlet

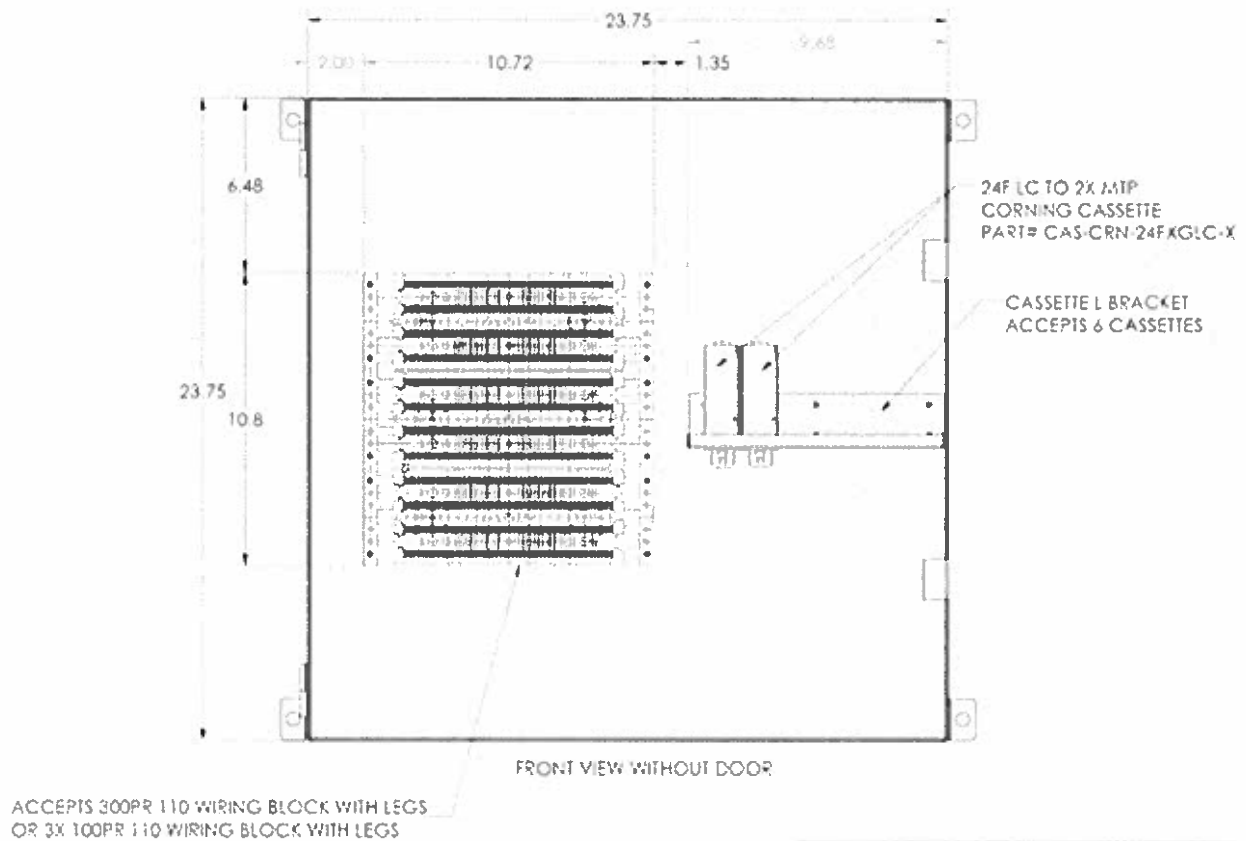


LAN1 / LAN3
Faceplate Label

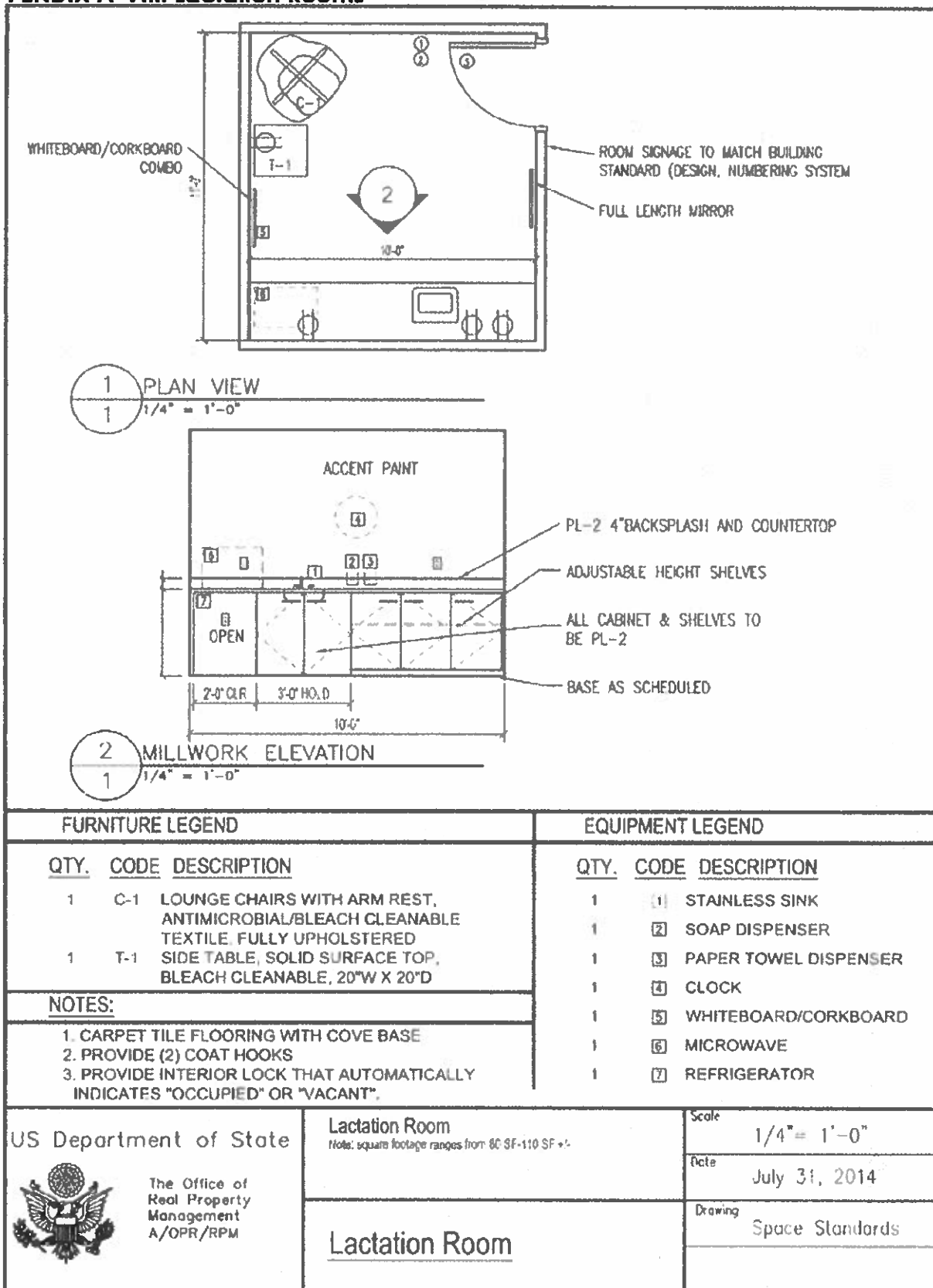


LAN2
Faceplate Label

SECTION A APPENDICES

APPENDIX A-VII: Zone Box Detail

Drawing of zone box designed to drop in a standard 2x2 ceiling grid. It has 110 blocks for LAN1/VOICE and LAN3, and a bracket for LAN2 fiber cassettes.

APPENDIX A-VIII: Lactation Rooms

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SECTION A APPENDICES

APPENDIX A-IX: Building Management Policy Regarding Cooking Appliances in DOS Buildings



United States Department of State
Washington, D.C. 20520

MEMORANDUM

Date: October 14, 2014

TO: Janice Smith, Director
A/OPR/FMS

FROM: Ben Blye, Fire Protection Engineer *BFB*
A/OPR/FMS/DESD

SUBJECT: Building Management Policy Regarding Cooking Appliances in DOS Buildings

Cooking appliances may be installed in areas specifically designed for the type of appliance.

Microwaves, toaster ovens, coffee makers, warmers, crock pots, hot plates and other cooking devices are permitted with the prior approval of the FMS Building Manager. These devices often require special power and venting which must comply with federal or local code. **They are only permitted in rooms intended for their use, such as a pantry area in a typical office suite.**

Traditional ovens and stove tops may be installed in "kitchens." The kitchen must be protected in accordance with NFPA 96, *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*.

Traditional (electric heat resistance or gas) ovens and stove tops may not be installed in pantries or any other area that is not a protected kitchen. **Ovens and stoves are not permitted for the following reasons:**

- Traditional ovens and stove tops present an unacceptable fire hazard and are riskier than microwave ovens. Combustible material might come in contact with the hot surface of a stove top. Ovens and stoves can also accidentally be left ON for an extended period, while unattended.
- Automatic fire sprinklers in office areas, include office pantry's, are designed for Light Hazard Occupancy, as defined by NFPA 13, *Standard for the Installation of Sprinkler Systems*. Rooms containing ovens or stoves are classified as Ordinary Hazard occupancies and the sprinkler system is not designed for that level of hazard.
- An oven or stove purchased by a tenant bureau or agency is not part of the building's preventive maintenance (PM) program. Lack of adequate maintenance is a common cause of fire or electrical hazards.
- An oven or stove purchased by a tenant bureau or agency is not part of the building's custodial program. Lack of adequate cleaning leads to the build-up of grease and is a common cause of fire.
- Oven and stove top cooking generate odors which will impact air quality.
- Ovens and stoves are not energy efficient compared to microwave ovens

Gas fired stoves or ovens are strictly prohibited from office suites, as is any open flame device.

If you have any questions or comments, please contact the responsible FMS Building Manager.

- Main State – Al Stewart (202-647-9654)
- Blair House – Dwayne Blye (202-566-8007)
- Leased Annex Field Offices – Greg Olson (202-663-1952)
- International Chancery Center – Steve Middleton (202-895-3632)
- Beltsville Information Management Center- Jeff Wilson (301-985-8946)
- NEA/C – Joe Sorrell (703-302-7179)
- Portsmouth Consular Center – Stan Boduch (603-334-0761)
- Charleston Regional Center – Sam Hudgins (843-746-0775)
- Florida Regional Center – Chuck O'Meara (954-630-1159)

SECTION A APPENDICES

APPENDIX A-X: Hot Work (Burn) Permit (GSA - 1755)

PERMIT FOR WELDING, CUTTING, OR BRAZING		1A. NAME OF EMERGENCY CONTACT	1B. TELEPHONE NUMBER
		2. OFFICE ISSUING PERMIT	
3. LOCATION FOR PERMIT	A. BUILDING NAME	B. SPECIFIC LOCATION WITHIN BUILDING	
4A. DATE OF WORK	5. SPECIAL NATURE OF WORK		
4B. START TIME			
4C. STOP TIME			
6. ANTICIPATED HAZARD DUE TO WORK (Safety/Health/Fire)			
7. LIST OF PROTECTIVE CLOTHING AND EQUIPMENT REQUIRED FOR WORK (include personal protection and public protection)			
8. NAME OF PERSON PERFORMING WORK		9. NAME OF FIRE WATCH AT SITE	
10. EMERGENCY PRECAUTIONS (include type of required fire extinguisher)			
11. PREWORK SITE INSPECTOR			
A. SIGNATURE	B. NAME AND TITLE	C. DATE	
12. PERMIT ISSUED BY			
A. SIGNATURE	B. NAME AND TITLE	C. DATE	
A. SIGNATURE OF POST-WORK CHECKUP INSPECTOR		13B. DATE	
GENERAL SERVICES ADMINISTRATION		GSA FORM 1755 (REV 8-91)	

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INSTRUCTIONS

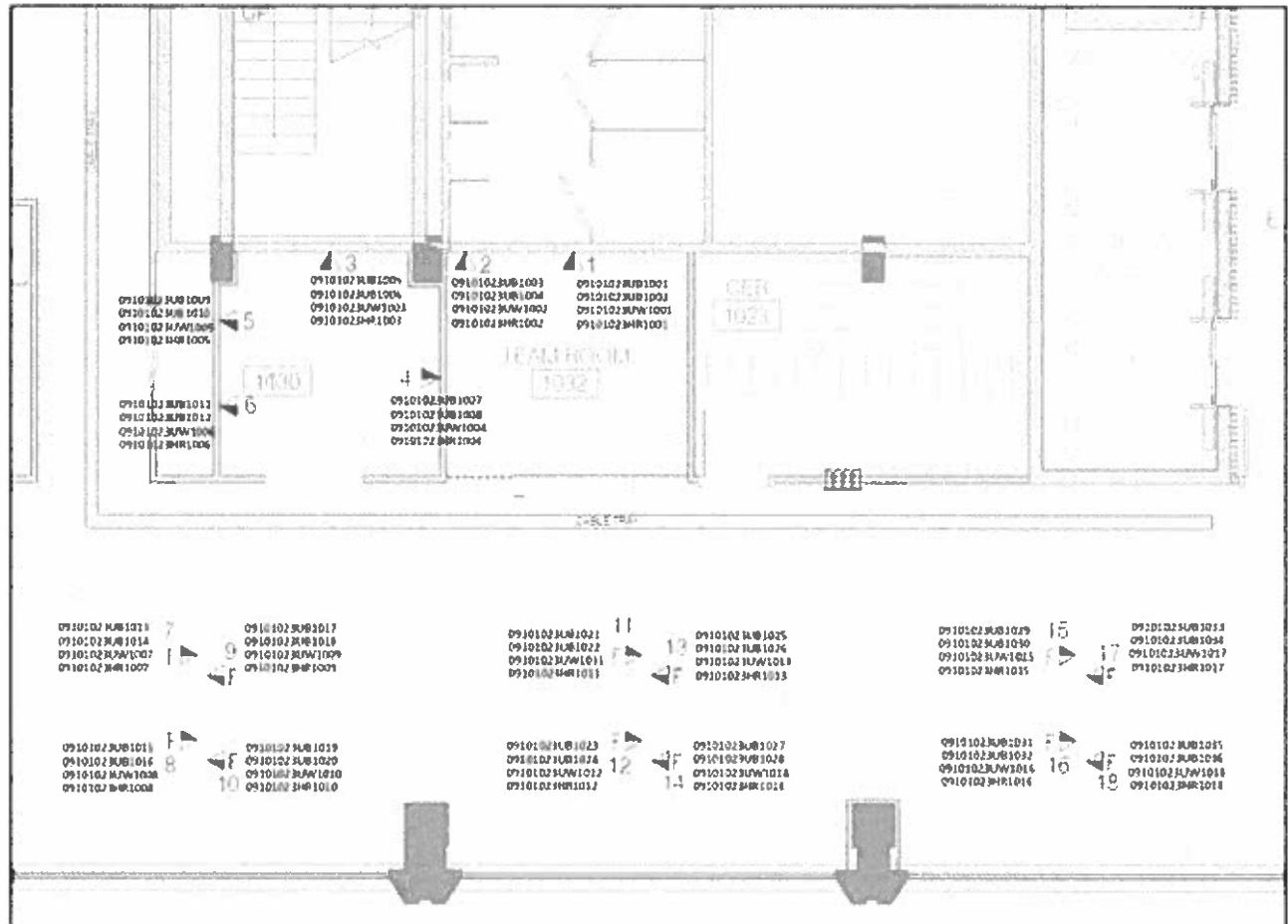
General. A permit must be issued prior to starting welding, cutting, or brazing, regardless of GSA Service involved. All welding, cutting, or brazing shall adhere to the relevant OSHA Standards (29 CFR 1910, or 29 CFR 1926). Every item on the form must be completed. The lack of signatures or any item not completed voids the permit. If the work is performed for a confined space entry task, a copy of this form is posted next to GSA form 3625, Permit for Confined Space Entry. Both forms must be clearly posted outside the confined space. Prior approval from the regional Safety Environmental Management Office is mandatory if the permit is issued for a confined space entry task. Upon completion of the work, or when the expected stop time is reached (*which ever comes first*), the completed permit is returned to the issuing authority for filing. The issuance of the permit in no way relieves a contractor of responsibility for an accident resulting from negligence with the work.

<u>Item No.</u>	<u>Action</u>
1A - 1B	Fill in the emergency name and telephone number in red (<i>preferred</i>).
4A - 4C	Permit is not valid 30 minutes prior to the end of the schedule work shift.
5	Validation for permit.
7	Protective devices also included screens and barricades for the protection of others.
8	Initial beside name to indicate knowledge and understanding of the form, its intended purpose, and safety precautions per OSHA Standard 29 CFR 1910, Subpart Q.
9	Initial besides name to indicate knowledge and understanding of the form and duties of a fire watch per OSHA Standard 29 CFR 1910, Subpart Q. The fire watch will not be the same person performing the work.
11	The pre-work inspection must be on the date of work before starting the operation. The supervisor in charge of the GSA employee performing the work or the Contracting Officer's representative conducts the inspection. The inspector ensures all combustibles are removed, covered, or protected.
12	Approves by the facility manager or authorized representative.
13	Conduct checkup 30 minutes after completion of work. Inspection should ensure the area is free of hazardous conditions.



SECTION A APPENDICES

APPENDIX A-XI: Telecommunications Sample Project Deliverables



Typical As-Built Example

Project #:							
Contractor:							
As-built Faceplate Location ID				WORKSTATION NETWORK CableType			
	Building ID	Floor	CER ROOM #	UB	UB	UW	HR
1	09	10	1023	09101023UB1001	09101023UB1002	09101023UW1001	09101023HR1001
2	09	10	1023	09101023UB1003	09101023UB1004	09101023UW1002	09101023HR1002
3	09	10	1023	09101023UB1005	09101023UB1006	09101023UW1003	09101023HR1003
4	09	10	1023	09101023UB1007	09101023UB1008	09101023UW1004	09101023HR1004
5	09	10	1023	09101023UB1009	09101023UB1010	09101023UW1005	09101023HR1005
6	09	10	1023	09101023UB1011	09101023UB1012	09101023UW1006	09101023HR1006
7	09	10	1023	09101023UB1013	09101023UB1014	09101023UW1007	09101023HR1007
8	09	10	1023	09101023UB1015	09101023UB1016	09101023UW1008	09101023HR1008
9	09	10	1023	09101023UB1017	09101023UB1018	09101023UW1009	09101023HR1009
10	09	10	1023	09101023UB1019	09101023UB1020	09101023UW1010	09101023HR1010
11	09	10	1023	09101023UB1021	09101023UB1022	09101023UW1011	09101023HR1011
12	09	10	1023	09101023UB1023	09101023UB1024	09101023UW1012	09101023HR1012
13	09	10	1023	09101023UB1025	09101023UB1026	09101023UW1013	09101023HR1013
14	09	10	1023	09101023UB1027	09101023UB1028	09101023UW1014	09101023HR1014
15	09	10	1023	Continue to 1048 then 2001-48		Continue to 1048 then 2001-48	
16	09	10	1023				
17	09	10	1023				
18	09	10	1023				
19	09	10	1023				
20	09	10	1023				
21	09	10	1023			Presuming 96 Port Fiber Patch Panel Capacity: Continue 1096 then 2001-96	

Contractor Work Area Outlet Cut Sheet

Project #:														
Contractor:														
Network Type	Cable Type	Building ID	Type	FROM			VERTICAL/ BACKBONE			TO			VERTICAL/ BACKBONE	
				CER	Row	Rack	Panel	Port	Type	CER	Row	Rack	Panel	Port
LAN 1	OM3 Fiber Optic MM	09	24 STRANDS MM	1023	1	UB 01	1000	1001-1012	24 STRANDS MM	423	1	UB 01	1000	1001-1012
LAN 1	OS2 Fiber Optic SM	09	24 STRANDS SM	1023	1	UB 01	1000	1013-1024	24 STRANDS SM	423	1	UB 01	1000	1013-1024
LAN 3	OM3 Fiber Optic MM	09	24 STRANDS MM	1023	1	UW 03	1000	1001-1012	24 STRANDS MM	423	1	UW 03	1000	1001-1012
LAN 3	OS2 Fiber Optic SM	09	24 STRANDS SM	1023	1	UW 03	1000	1013-1024	24 STRANDS SM	423	1	UW 03	1000	1013-1024
LAN 2	OM3 Fiber Optic MM	09	24 STRANDS MM	1023	1	HR 04	1000	1001-1012	24 STRANDS MM	423	1	HR 04	1000	1001-1012
LAN 2	OS2 Fiber Optic SM	09	24 STRANDS SM	1023	1	HR 04	1000	1013-1024	24 STRANDS SM	423	1	HR 04	1000	1013-1024

Backbone Cut Sheet

SECTION A APPENDICES

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U.S. Department of State
Office of Real Property Management
Office of Facilities Management Services

October, 2019

(b) (6)



SECURITY REQUIREMENTS - FACILITY SECURITY LEVEL III

THESE PARAGRAPHS CONTAIN ADDITIONAL SECURITY REQUIREMENTS THAT MAY BE INSTALLED IN THE LEASED SPACE, AND UNLESS INDICATED OTHERWISE, ARE TO BE PRICED AS PART OF THE BUILDING SPECIFIC AMORTIZED CAPITAL (BSAC). BECAUSE EACH BUILDING IS UNIQUE, THE FINAL LIST OF SECURITY COUNTERMEASURES WILL BE DETERMINED DURING THE DESIGN PHASE AND IDENTIFIED IN THE DESIGN INTENT DRAWINGS AND CONSTRUCTION DOCUMENTS. AFTER COMPLETING THE CONSTRUCTION DOCUMENTS, THE LESSOR SHALL SUBMIT A LIST OF THE ITEMIZED COSTS. SUCH COSTS SHALL BE SUBJECT TO NEGOTIATION.

NOTE THAT ITEMS IDENTIFIED AS "SHELL *" REPRESENT A LESSOR'S OBLIGATIONS OR THE GOVERNMENT'S RIGHTS AND ARE NOT NECESSARILY ITEMS TO BE CONSTRUCTED.

DEFINITIONS: Definitions are the same as those used in the Lease unless re-defined in these Security Requirements.

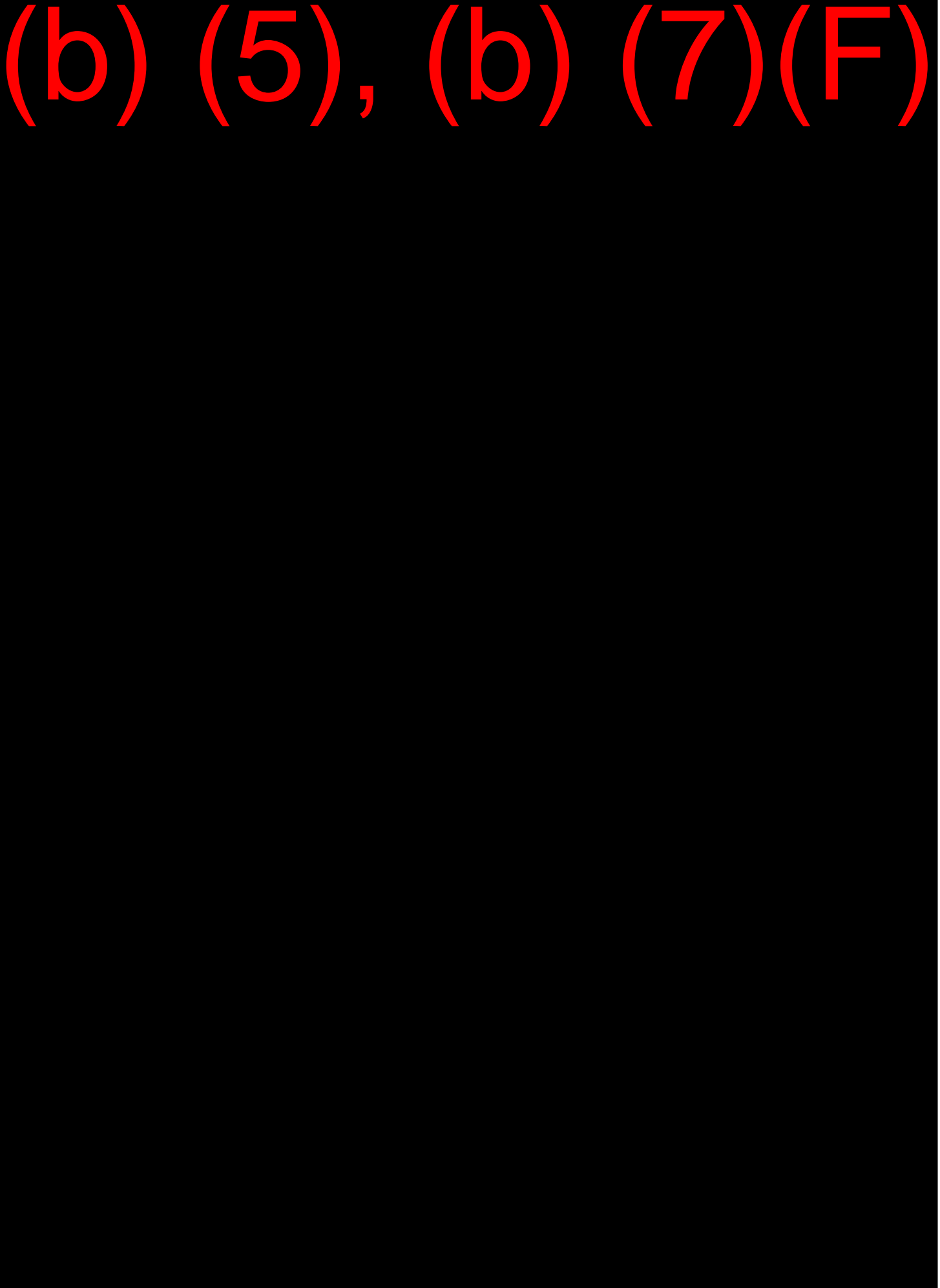
CRITICAL AREAS AND SYSTEMS- The areas that house systems that if damaged and/or compromised could have significant adverse consequences for the facility, operation of the facility, or mission of the agency or its occupants and visitors. These areas may also be referred to as "limited access areas," "restricted areas," or "exclusionary zones." Critical areas do not necessarily have to be within Government-controlled Space (e.g., generators, air handlers, electrical feeds, utilities, telecom closets or potable water supply that may be located outside Government-controlled Space).

DESIGN-BASIS THREAT – The Design-Basis Threat (DBT) is the profile and estimate of the threats to a Government facility across a range of specific undesirable events, and serves as the basis for determining appropriate security standards. The Lessor's technical consultant(s) shall work in conjunction with the Government, including the Federal Protective Service (FPS), to apply the DBT to the post-award risk assessment. The risk assessment identifies recommended countermeasures and security design features that achieve the minimum baseline level of protection for a particular facility. The baseline level of protection may be further customized to address facility-specific conditions. The Lessor is responsible for providing countermeasure provisions outlined in this FSL document, as well as for additional items identified during the post-award risk assessment. Any additional countermeasures identified during this assessment shall be priced as BSAC.

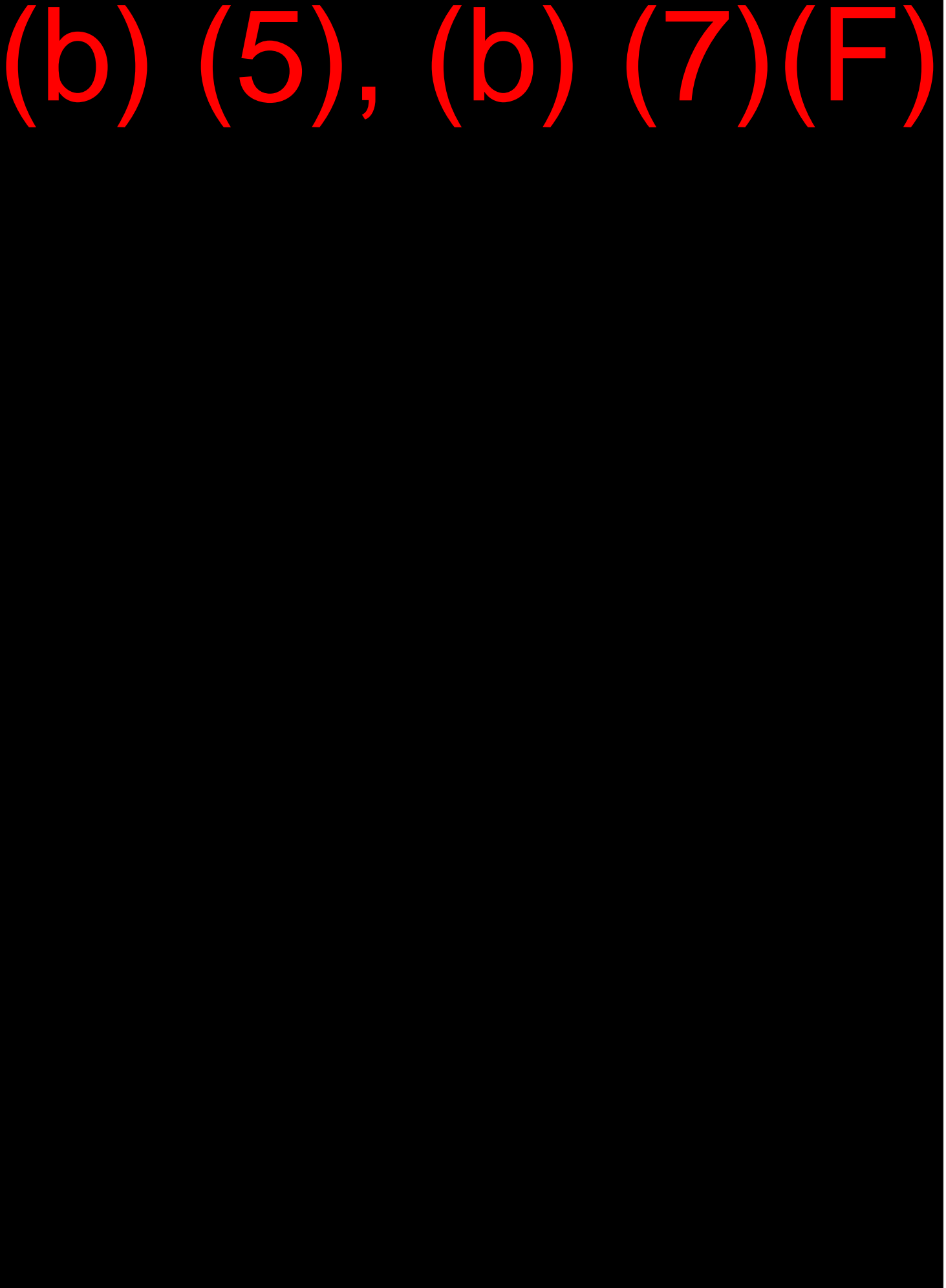
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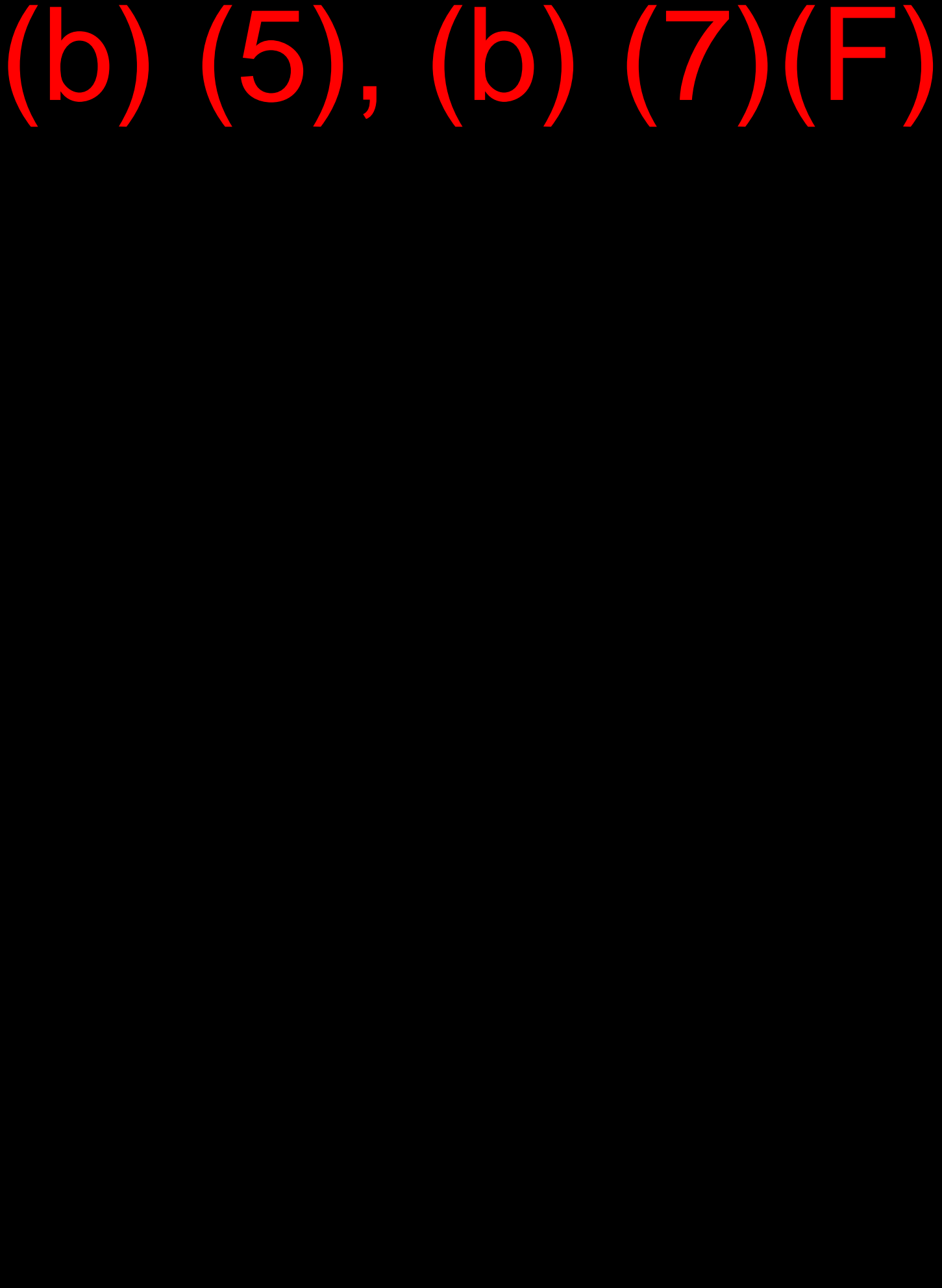
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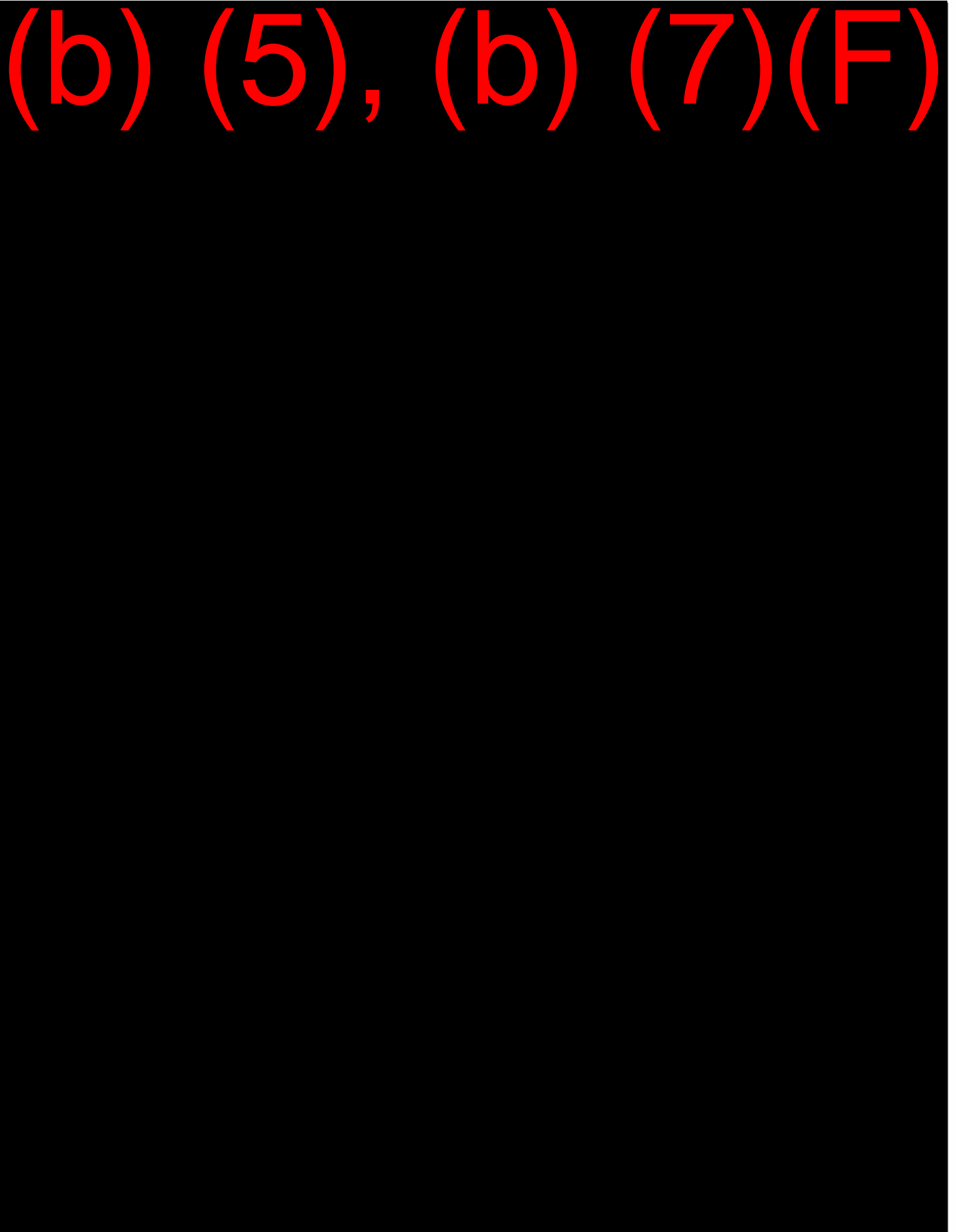
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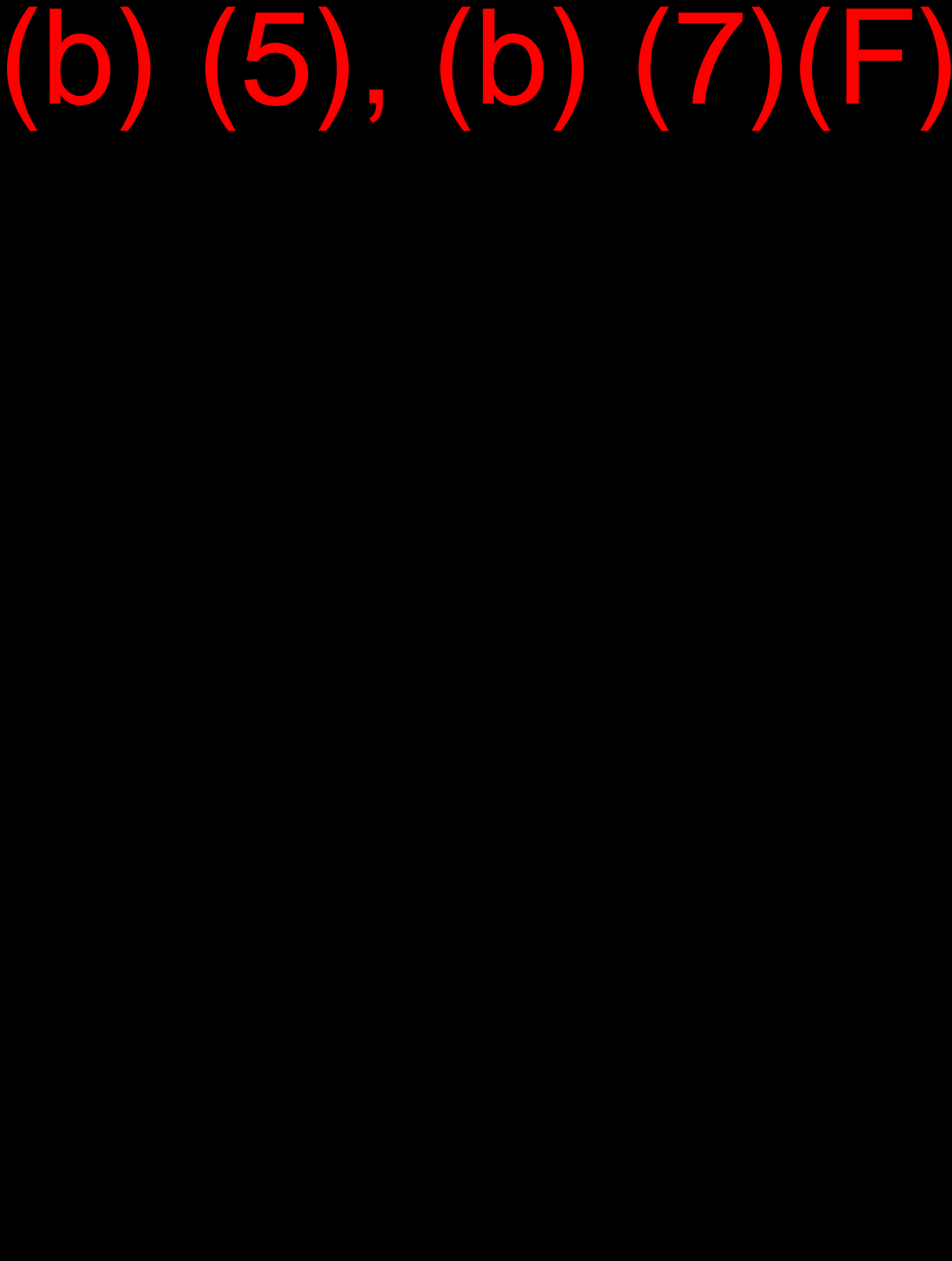
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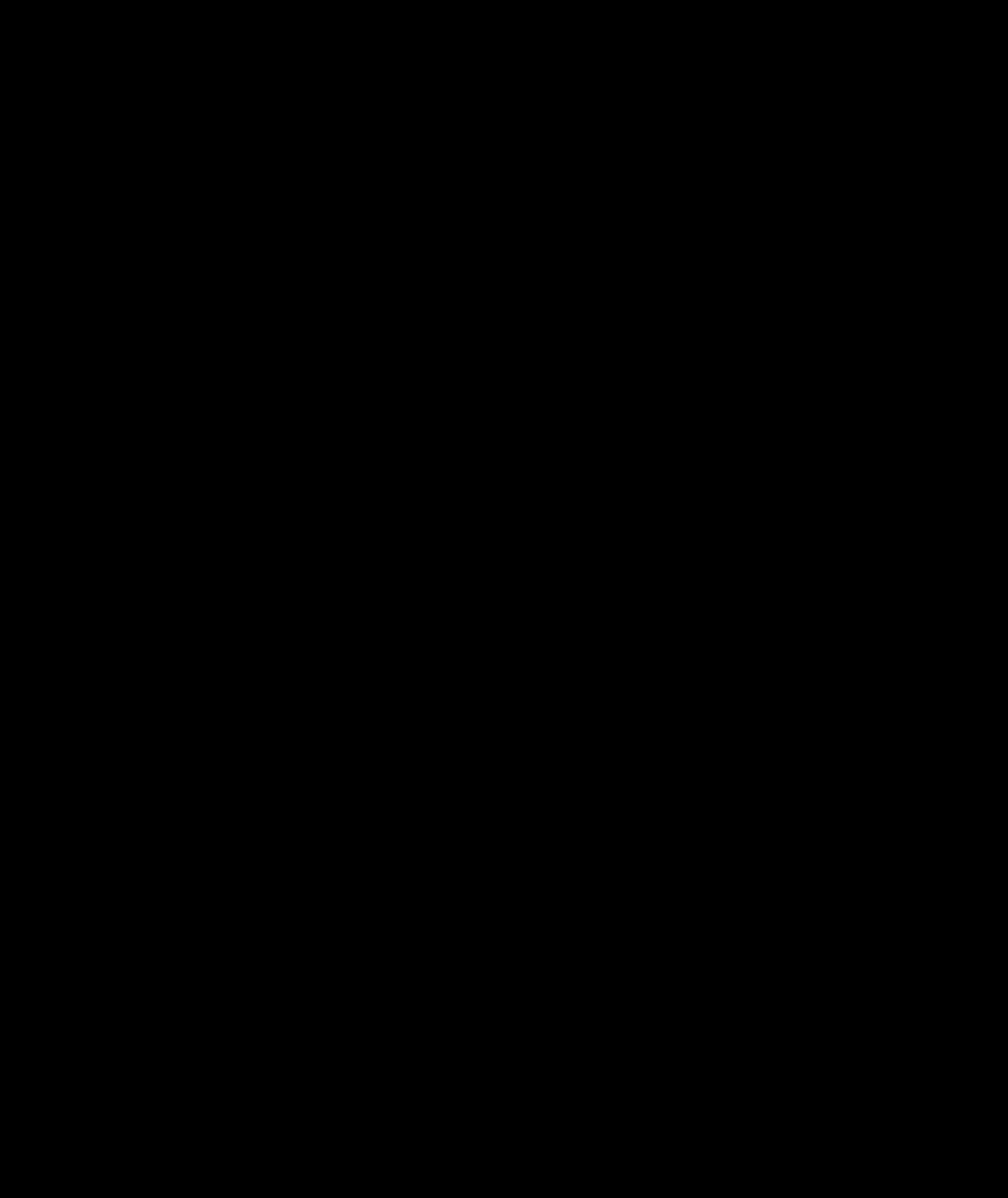
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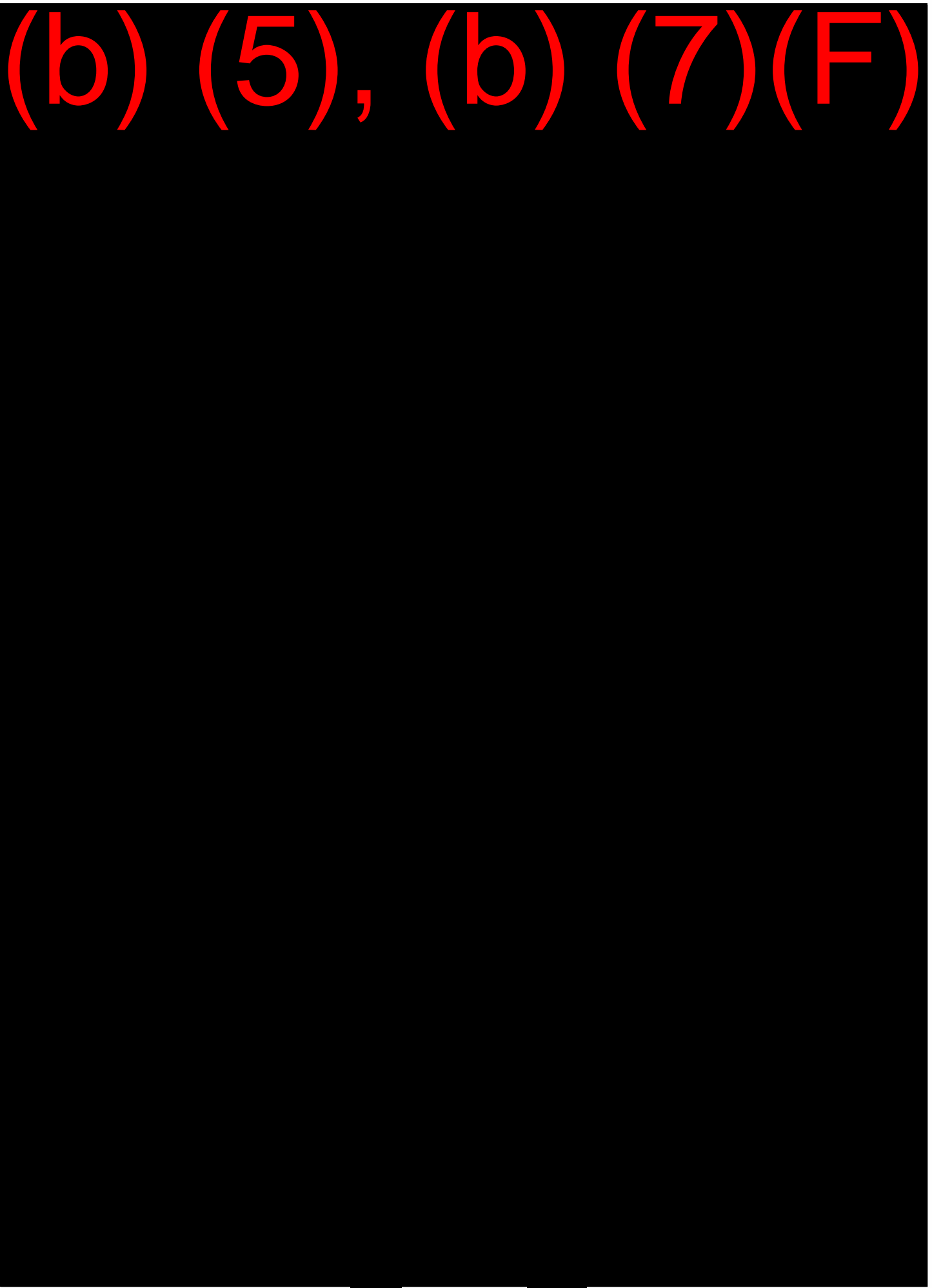
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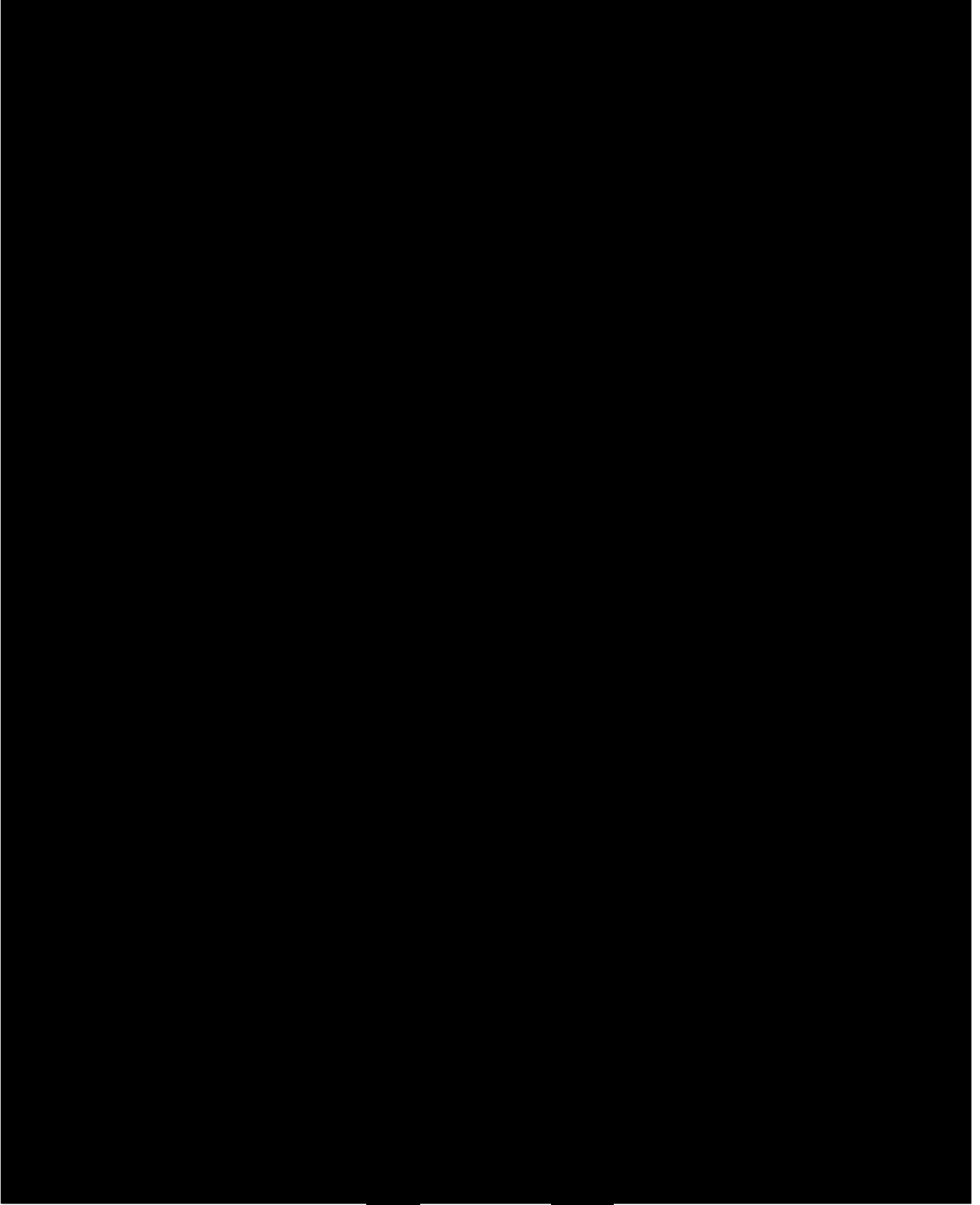
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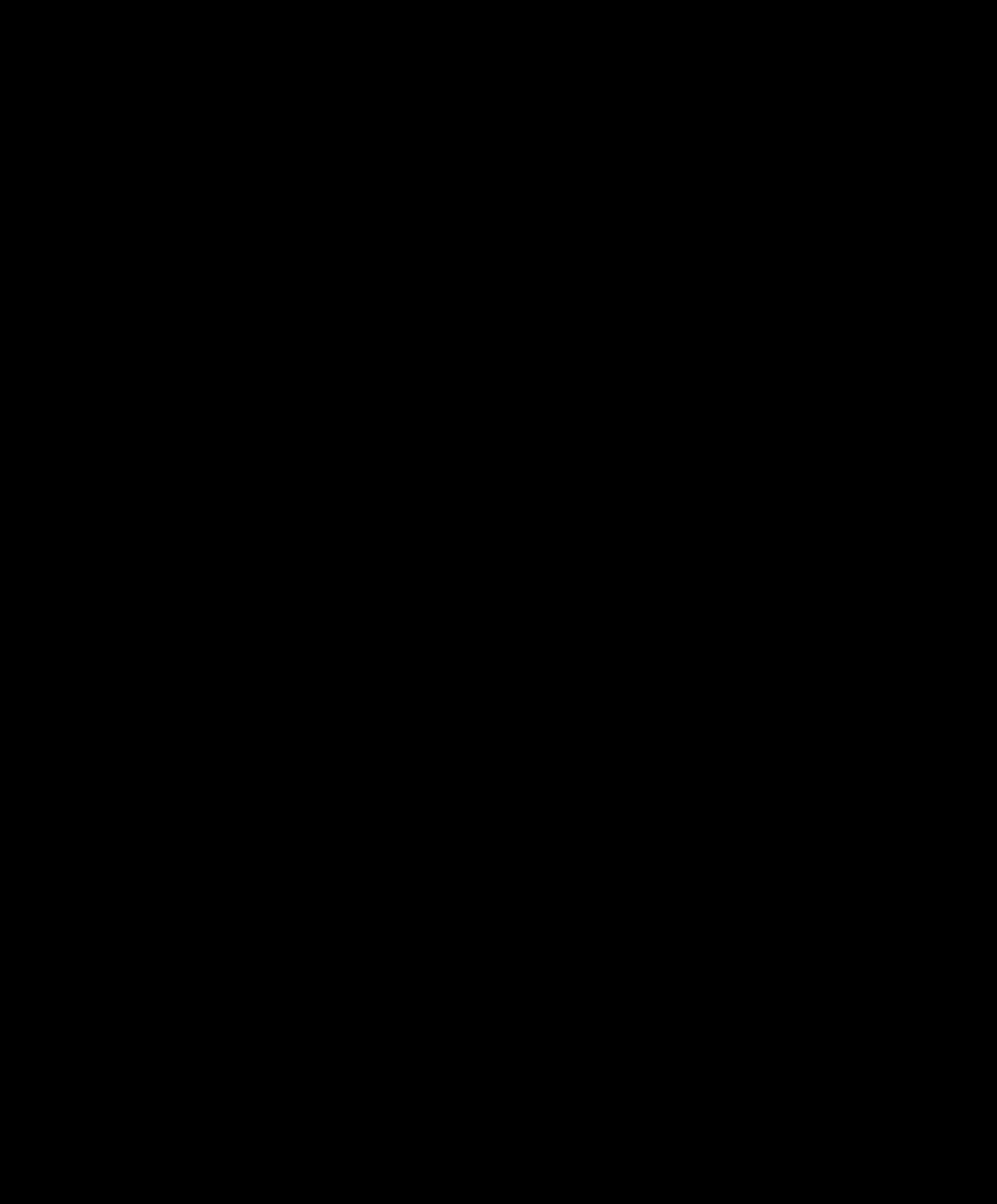
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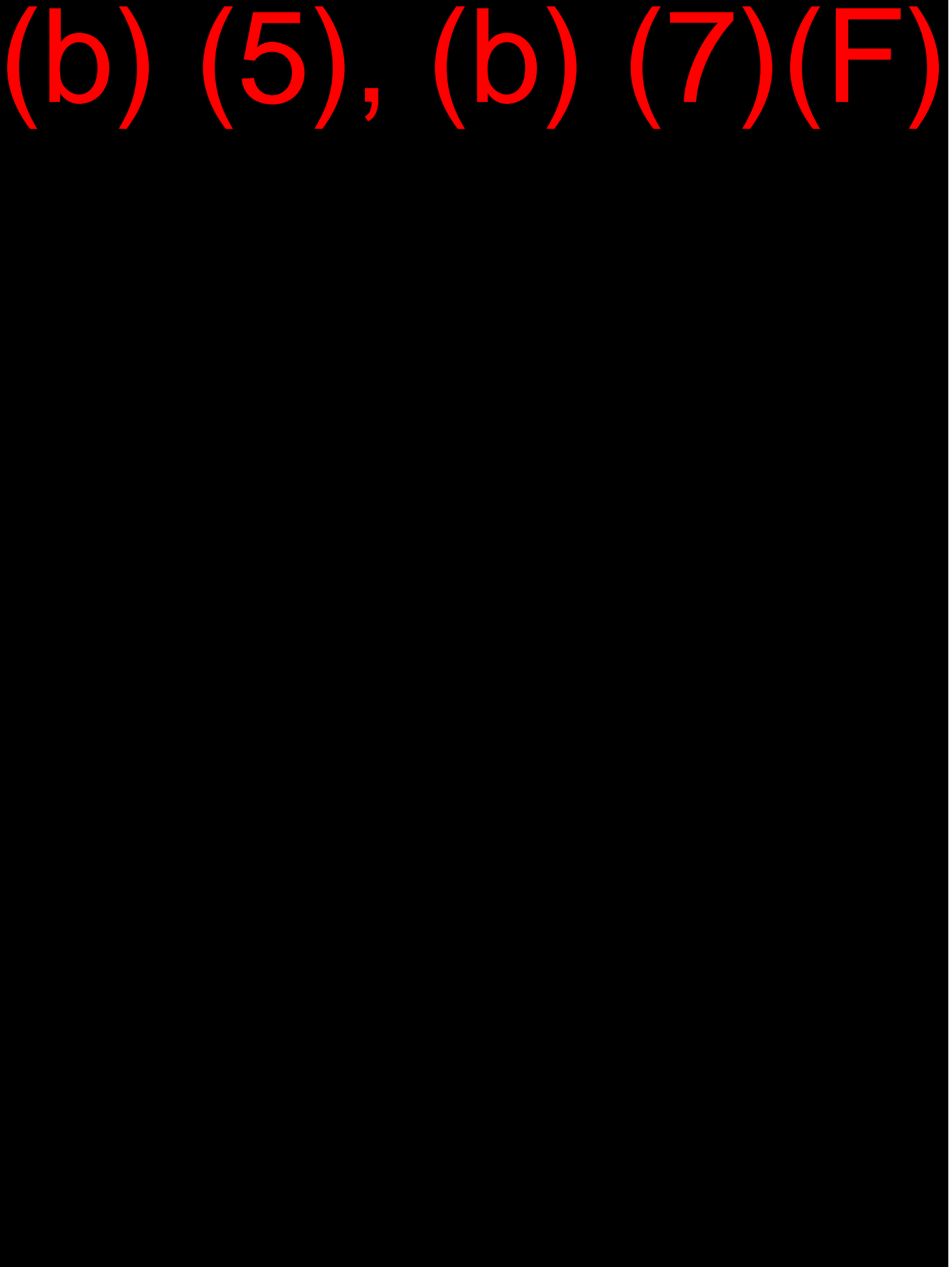
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LESSOR: (b) (6) GOVERNMENT:

SECURITY REQUIREMENTS (LEVEL III)
REV (08/11/2021)
Page 13 of 13

GENERAL CLAUSES
(Acquisition of Leasehold Interests in Real Property)

CATEGORY	CLAUSE NO.	48 CFR REF.	CLAUSE TITLE
GENERAL	1		SUBLETTING AND ASSIGNMENT
	2	552.270-11	SUCCESSORS BOUND
	3	552.270-23	SUBORDINATION, NON-DISTURBANCE AND ATTORNMEN
	4	552.270-24	STATEMENT OF LEASE
	5	552.270-25	SUBSTITUTION OF TENANT AGENCY
	6	552.270-26	NO WAIVER
	7		INTEGRATED AGREEMENT
	8	552.270-28	MUTUALITY OF OBLIGATION
PERFORMANCE	9		DELIVERY AND CONDITION
	10		DEFAULT BY LESSOR
	11	552.270-19	PROGRESSIVE OCCUPANCY
	12		MAINTENANCE OF THE PROPERTY, RIGHT TO INSPECT
	13		FIRE AND CASUALTY DAMAGE
	14		COMPLIANCE WITH APPLICABLE LAW
	15	552.270-12	ALTERATIONS
	16		ACCEPTANCE OF SPACE AND CERTIFICATE OF OCCUPANCY
PAYMENT	17	52.204-13	SYSTEM FOR AWARD MANAGEMENT MAINTENANCE
	18	552.270-31	PROMPT PAYMENT
	19	52.232-23	ASSIGNMENT OF CLAIMS
	20		PAYMENT
	21	52.232-33	PAYMENT BY ELECTRONIC FUNDS TRANSFER—SYSTEM FOR AWARD MANAGEMENT
STANDARDS OF CONDUCT	22	52.203-13	CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT
	23	552.270-32	COVENANT AGAINST CONTINGENT FEES
	24	52-203-7	ANTI-KICKBACK PROCEDURES
	25	52-223-6	DRUG-FREE WORKPLACE
	26	52.203-14	DISPLAY OF HOTLINE POSTER(S)
ADJUSTMENTS	27	552.270-30	PRICE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY
	28	52.215-10	PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA
	29	552.270-13	PROPOSALS FOR ADJUSTMENT
	30		CHANGES
AUDITS	31	552.215-70	EXAMINATION OF RECORDS BY GSA
	32	52.215-2	AUDIT AND RECORDS—NEGOTIATION

LESSOR:  GOVERNMENT: 

DISPUTES	33	52.233-1	DISPUTES
LABOR STANDARDS	34	52.222-26	EQUAL OPPORTUNITY
	35	52.222-21	PROHIBITION OF SEGREGATED FACILITIES
	36	52.219-28	POST-AWARD SMALL BUSINESS PROGRAM REREPRESENTATION
	37	52.222-35	EQUAL OPPORTUNITY FOR VETERANS
	38	52.222-36	EQUAL OPPORTUNITY FOR WORKERS WITH DISABILITIES
	39	52.222-37	EMPLOYMENT REPORTS ON VETERANS
SUBCONTRACTING	40	52.209-6	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT
	41	52.215-12	SUBCONTRACTOR CERTIFIED COST OR PRICING DATA
	42	52.219-8	UTILIZATION OF SMALL BUSINESS CONCERNS
	43	52.219-9	SMALL BUSINESS SUBCONTRACTING PLAN
	44	52.219-16	LIQUIDATED DAMAGES—SUBCONTRACTING PLAN
	45	52.204-10	REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS
OTHER	46	52.204-25	PROHIBITION ON CONTRACTING FOR CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT
	47		INTENTIONALLY DELETED
	48	52.204-19	INCORPORATION BY REFERENCE OF REPRESENTATIONS AND CERTIFICATIONS

The information collection requirements contained in this solicitation/contract that are not required by regulation have been approved by the Office of Management and Budget (OMB) pursuant to the Paperwork Reduction Act and assigned the OMB Control No. 3090-0163.

LESSOR:  GOVERNMENT: 

GENERAL CLAUSES
(Acquisition of Leasehold Interests in Real Property)

1. SUBLETTING AND ASSIGNMENT (JAN 2011)

The Government may sublet any part of the premises but shall not be relieved from any obligations under this lease by reason of any such subletting. The Government may at any time assign this lease, and be relieved from all obligations to Lessor under this lease excepting only unpaid rent and other liabilities, if any, that have accrued to the date of said assignment. Any subletting or assignment shall be subject to prior written consent of Lessor, which shall not be unreasonably withheld.

2. 552.270-11 SUCCESSORS BOUND (SEP 1999)

This lease shall bind, and inure to the benefit of, the parties and their respective heirs, executors, administrators, successors, and assigns.

3. 552.270-23 SUBORDINATION, NON-DISTURBANCE AND ATTORNMENT (SEP 1999)

(a) Lessor warrants that it holds such title to or other interest in the premises and other property as is necessary to the Government's access to the premises and full use and enjoyment thereof in accordance with the provisions of this lease. Government agrees, in consideration of the warranties and conditions set forth in this clause, that this lease is subject and subordinate to any and all recorded mortgages, deeds of trust and other liens now or hereafter existing or imposed upon the premises, and to any renewal, modification or extension thereof. It is the intention of the parties that this provision shall be self-operative and that no further instrument shall be required to effect the present or subsequent subordination of this lease. Government agrees, however, within twenty (20) business days next following the Contracting Officer's receipt of a written demand, to execute such instruments as Lessor may reasonably request to evidence further the subordination of this lease to any existing or future mortgage, deed of trust or other security interest pertaining to the premises, and to any water, sewer or access easement necessary or desirable to serve the premises or adjoining property owned in whole or in part by Lessor if such easement does not interfere with the full enjoyment of any right granted the Government under this lease.

(b) No such subordination, to either existing or future mortgages, deeds of trust or other lien or security instrument shall operate to affect adversely any right of the Government under this lease so long as the Government is not in default under this lease. Lessor will include in any future mortgage, deed of trust or other security instrument to which this lease becomes subordinate, or in a separate non-disturbance agreement, a provision to the foregoing effect. Lessor warrants that the holders of all notes or other obligations secured by existing mortgages, deeds of trust or other security instruments have consented to the provisions of this clause, and agrees to provide true copies of all such consents to the Contracting Officer promptly upon demand.

(c) In the event of any sale of the premises or any portion thereof by foreclosure of the lien of any such mortgage, deed of trust or other security instrument, or the giving of a deed in lieu of foreclosure, the Government will be deemed to have attorned to any purchaser, purchasers, transferee or transferees of the premises or any portion thereof and its or their successors and assigns, and any such purchasers and transferees will be deemed to have assumed all obligations of the Lessor under this lease, so as to establish direct privity of estate and contract between Government and such purchasers or transferees, with the same force, effect and relative priority in time and right as if the lease had initially been entered into between such purchasers or transferees and the Government; provided, further, that the Contracting Officer and such purchasers or transferees shall, with reasonable promptness following any such sale or deed delivery in lieu of foreclosure, execute all such revisions to this lease, or other writings, as shall be necessary to document the foregoing relationship.

(d) None of the foregoing provisions may be deemed or construed to imply a waiver of the Government's rights as a sovereign.

LESSOR:  GOVERNMENT: 

4. 552.270-24 STATEMENT OF LEASE (SEP 1999)

(a) The Contracting Officer will, within thirty (30) days next following the Contracting Officer's receipt of a joint written request from Lessor and a prospective lender or purchaser of the building, execute and deliver to Lessor a letter stating that the same is issued subject to the conditions stated in this clause and, if such is the case, that (1) the lease is in full force and effect; (2) the date to which the rent and other charges have been paid in advance, if any; and (3) whether any notice of default has been issued.

(b) Letters issued pursuant to this clause are subject to the following conditions:

(1) That they are based solely upon a reasonably diligent review of the Contracting Officer's lease file as of the date of issuance;

(2) That the Government shall not be held liable because of any defect in or condition of the premises or building;

(3) That the Contracting Officer does not warrant or represent that the premises or building comply with applicable Federal, State and local law; and

(4) That the Lessor, and each prospective lender and purchaser are deemed to have constructive notice of such facts as would be ascertainable by reasonable pre-purchase and pre-commitment inspection of the Premises and Building and by inquiry to appropriate Federal, State and local Government officials.

5. 552.270-25 SUBSTITUTION OF TENANT AGENCY (SEP 1999)

The Government may, at any time and from time to time, substitute any Government agency or agencies for the Government agency or agencies, if any, named in the lease.

6. 552.270-26 NO WAIVER (SEP 1999)

No failure by either party to insist upon the strict performance of any provision of this lease or to exercise any right or remedy consequent upon a breach thereof, and no acceptance of full or partial rent or other performance by either party during the continuance of any such breach shall constitute a waiver of any such breach of such provision.

7. INTEGRATED AGREEMENT (JUN 2012)

This Lease, upon execution, contains the entire agreement of the parties and no prior written or oral agreement, express or implied, shall be admissible to contradict the provisions of the Lease. Except as expressly attached to and made a part of the Lease, neither the Request for Lease Proposals nor any pre-award communications by either party shall be incorporated in the Lease.

8. 552.270-28 MUTUALITY OF OBLIGATION (SEP 1999)

The obligations and covenants of the Lessor, and the Government's obligation to pay rent and other Government obligations and covenants, arising under or related to this Lease, are interdependent. The Government may, upon issuance of and delivery to Lessor of a final decision asserting a claim against Lessor, set off such claim, in whole or in part, as against any payment or payments then or thereafter due the Lessor under this lease. No setoff pursuant to this clause shall constitute a breach by the Government of this lease.

9. DELIVERY AND CONDITION (JAN 2011)

(a) Unless the Government elects to have the space occupied in increments, the space must be delivered ready for occupancy as a complete unit.

LESSOR:  GOVERNMENT: 

(b) The Government may elect to accept the Space notwithstanding the Lessor's failure to deliver the Space substantially complete; if the Government so elects, it may reduce the rent payments.

10. DEFAULT BY LESSOR (APR 2012)

(a) The following conditions shall constitute default by the Lessor, and shall give rise to the following rights and remedies for the Government:

(1) Prior to Acceptance of the Premises. Failure by the Lessor to diligently perform all obligations required for Acceptance of the Space within the times specified, without excuse, shall constitute a default by the Lessor. Subject to provision of notice of default to the Lessor, and provision of a reasonable opportunity for the Lessor to cure its default, the Government may terminate the Lease on account of the Lessor's default.

(2) After Acceptance of the Premises. Failure by the Lessor to perform any service, to provide any item, or satisfy any requirement of this Lease, without excuse, shall constitute a default by the Lessor. Subject to provision of notice of default to the Lessor, and provision of a reasonable opportunity for the Lessor to cure its default, the Government may perform the service, provide the item, or obtain satisfaction of the requirement by its own employees or contractors. If the Government elects to take such action, the Government may deduct from rental payments its costs incurred in connection with taking the action. Alternatively, the Government may reduce the rent by an amount reasonably calculated to approximate the cost or value of the service not performed, item not provided, or requirement not satisfied, such reduction effective as of the date of the commencement of the default condition.

(3) Grounds for Termination. The Government may terminate the Lease if:

(i) The Lessor's default persists notwithstanding provision of notice and reasonable opportunity to cure by the Government, or

(ii) The Lessor fails to take such actions as are necessary to prevent the recurrence of default conditions,

and such conditions (i) or (ii) substantially impair the safe and healthful occupancy of the Premises, or render the Space unusable for its intended purposes.

(4) Excuse. Failure by the Lessor to timely deliver the Space or perform any service, provide any item, or satisfy any requirement of this Lease shall not be excused if its failure in performance arises from:

(i) Circumstances within the Lessor's control;

(ii) Circumstances about which the Lessor had actual or constructive knowledge prior to the Lease Award Date that could reasonably be expected to affect the Lessor's capability to perform, regardless of the Government's knowledge of such matters;

(iii) The condition of the Property;

(iv) The acts or omissions of the Lessor, its employees, agents or contractors; or

(v) The Lessor's inability to obtain sufficient financial resources to perform its obligations.

(5) The rights and remedies specified in this clause are in addition to any and all remedies to which the Government may be entitled as a matter of law.

LESSOR:  GOVERNMENT: 

11. 552.270-19 PROGRESSIVE OCCUPANCY (SEP 1999)

The Government shall have the right to elect to occupy the space in partial increments prior to the substantial completion of the entire leased premises, and the Lessor agrees to schedule its work so as to deliver the space incrementally as elected by the Government. The Government shall pay rent commencing with the first business day following substantial completion of the entire leased premise unless the Government has elected to occupy the leased premises incrementally. In case of incremental occupancy, the Government shall pay rent pro rata upon the first business day following substantial completion of each incremental unit. Rental payments shall become due on the first workday of the month following the month in which an increment of space is substantially complete, except that should an increment of space be substantially completed after the fifteenth day of the month, the payment due date will be the first workday of the second month following the month in which it was substantially complete. The commencement date of the firm lease term will be a composite determined from all rent commencement dates.

12. MAINTENANCE OF THE PROPERTY, RIGHT TO INSPECT (APR 2015)

The Lessor shall maintain the Property, including the building, building systems, and all equipment, fixtures, and appurtenances furnished by the Lessor under this Lease, in good repair and tenantable condition so that they are suitable in appearance and capable of supplying such heat, air conditioning, light, ventilation, safety systems, access and other things to the premises, without reasonably preventable or recurring disruption, as is required for the Government's access to, occupancy, possession, use and enjoyment of the premises as provided in this lease. For the purpose of so maintaining the premises, the Lessor may at reasonable times enter the premises with the approval of the authorized Government representative in charge. Upon request of the Lease Contracting Officer (LCO), the Lessor shall provide written documentation that building systems have been properly maintained, tested, and are operational within manufacturer's warranted operating standards. The Lessor shall maintain the Premises in a safe and healthful condition according to applicable OSHA standards and all other requirements of this Lease, including standards governing indoor air quality, existence of mold and other biological hazards, presence of hazardous materials, etc. The Government shall have the right, at any time after the Lease Award Date and during the term of the Lease, to inspect all areas of the Property to which access is necessary for the purpose of determining the Lessor's compliance with this clause.

13. FIRE AND CASUALTY DAMAGE (JUN 2016)

If the building in which the Premises are located is totally destroyed or damaged by fire or other casualty, this Lease shall immediately terminate. If the building in which the Premises are located are only partially destroyed or damaged, so as to render the Premises untenable, or not usable for their intended purpose, the Lessor shall have the option to elect to repair and restore the Premises or terminate the Lease. The Lessor shall be permitted a reasonable amount of time, not to exceed **270 days** from the event of destruction or damage, to repair or restore the Premises, provided that the Lessor submits to the Government a reasonable schedule for repair of the Premises within **60 days** of the event of destruction or damage. If the Lessor fails to timely submit a reasonable schedule for completing the work, the Government may elect to terminate the Lease effective as of the date of the event of destruction or damage. If the Lessor elects to repair or restore the Premises, but fails to repair or restore the Premises within **270 days** from the event of destruction or damage, or fails to diligently pursue such repairs or restoration so as to render timely completion commercially impracticable, the Government may terminate the Lease effective as of the date of the destruction or damage. During the time that the Premises are unoccupied, rent shall be abated. Termination of the Lease by either party under this clause shall not give rise to liability for either party.

Nothing in this lease shall be construed as relieving Lessor from liability for damage to, or destruction of, property of the United States of America caused by the willful or negligent act or omission of Lessor.

14. COMPLIANCE WITH APPLICABLE LAW (JAN 2011)

Lessor shall comply with all Federal, state and local laws applicable to its ownership and leasing of the Property, including, without limitation, laws applicable to the construction, ownership, alteration or operation of all buildings, structures, and facilities located thereon, and obtain all necessary permits, licenses and similar items at its own expense. The Government will comply with all Federal, State and local laws applicable to and enforceable against it as a

LESSOR:  GOVERNMENT: 

tenant under this lease, provided that nothing in this Lease shall be construed as a waiver of the sovereign immunity of the Government. This Lease shall be governed by Federal law.

15. 552.270-12 ALTERATIONS (SEP 1999)

The Government shall have the right during the existence of this lease to make alterations, attach fixtures, and erect structures or signs in or upon the premises hereby leased, which fixtures, additions or structures so placed in, on, upon, or attached to the said premises shall be and remain the property of the Government and may be removed or otherwise disposed of by the Government. If the lease contemplates that the Government is the sole occupant of the building, for purposes of this clause, the leased premises include the land on which the building is sited and the building itself. Otherwise, the Government shall have the right to tie into or make any physical connection with any structure located on the property as is reasonably necessary for appropriate utilization of the leased space.

16. ACCEPTANCE OF SPACE AND CERTIFICATE OF OCCUPANCY (APR 2015)

(a) Ten (10) working days prior to the completion of the Space, the Lessor shall issue written notice to the Government to schedule the inspection of the Space for acceptance. The Government shall accept the Space only if the construction of building shell and TIs conforming to this Lease and the approved DIDs is substantially complete, and a Certificate of Occupancy has been issued as set forth below.

(b) The Space shall be considered substantially complete only if the Space may be used for its intended purpose and completion of remaining work will not unreasonably interfere with the Government's enjoyment of the Space. Acceptance shall be final and binding upon the Government with respect to conformance of the completed TIs to the approved DIDs, with the exception of items identified on a punchlist generated as a result of the inspection, concealed conditions, latent defects, or fraud, but shall not relieve the Lessor of any other Lease requirements.

(c) The Lessor shall provide a valid Certificate of Occupancy, issued by the local jurisdiction, for the intended use of the Government. If the local jurisdiction does not issue Certificates of Occupancy or if the Certificate of Occupancy is not available, the Lessor may satisfy this condition by providing a report prepared by a licensed fire protection engineer that indicates that the Space and Building are compliant with all applicable local codes and ordinances and all fire protection and life safety-related requirements of this Lease to ensure an acceptable level of safety is provided. Under such circumstances, the Government shall only accept the Space without a Certificate of Occupancy if a licensed fire protection engineer determines that the offered space is compliant with all applicable local codes and ordinances and fire protection and life safety-related requirements of this Lease.

17. 52.204-13 SYSTEM FOR AWARD MANAGEMENT MAINTENANCE (OCT 2018)

This clause is incorporated by reference.

18. 552.270-31 PROMPT PAYMENT (JUN 2011)

The Government will make payments under the terms and conditions specified in this clause. Payment shall be considered as being made on the day a check is dated or an electronic funds transfer is made. All days referred to in this clause are calendar days, unless otherwise specified.

(a) *Payment due date—*

(1) *Rental payments.* Rent shall be paid monthly in arrears and will be due on the first workday of each month, and only as provided for by the lease.

(i) When the date for commencement of rent falls on the 15th day of the month or earlier, the initial monthly rental payment under this contract shall become due on the first workday of the month following the month in which the commencement of the rent is effective.

LESSOR:  GOVERNMENT: 

(ii) When the date for commencement of rent falls after the 15th day of the month, the initial monthly rental payment under this contract shall become due on the first workday of the second month following the month in which the commencement of the rent is effective.

(2) *Other payments.* The due date for making payments other than rent shall be the later of the following two events:

(i) The 30th day after the designated billing office has received a proper invoice from the Contractor.

(ii) The 30th day after Government acceptance of the work or service. However, if the designated billing office fails to annotate the invoice with the actual date of receipt, the invoice payment due date shall be deemed to be the 30th day after the Contractor's invoice is dated, provided a proper invoice is received and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(b) *Invoice and inspection requirements for payments other than rent.*

(1) The Contractor shall prepare and submit an invoice to the designated billing office after completion of the work. A proper invoice shall include the following items:

(i) Name and address of the Contractor.

(ii) Invoice date.

(iii) Lease number.

(iv) Government's order number or other authorization.

(v) Description, price, and quantity of work or services delivered.

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the remittance address in the lease or the order).

(vii) Name (where practicable), title, phone number, and mailing address of person to be notified in the event of a defective invoice.

(2) The Government will inspect and determine the acceptability of the work performed or services delivered within seven days after the receipt of a proper invoice or notification of completion of the work or services unless a different period is specified at the time the order is placed. If actual acceptance occurs later, for the purpose of determining the payment due date and calculation of interest, acceptance will be deemed to occur on the last day of the seven day inspection period. If the work or service is rejected for failure to conform to the technical requirements of the contract, the seven days will be counted beginning with receipt of a new invoice or notification. In either case, the Contractor is not entitled to any payment or interest unless actual acceptance by the Government occurs.

(c) *Interest Penalty.*

(1) An interest penalty shall be paid automatically by the Government, without request from the Contractor, if payment is not made by the due date.

(2) The interest penalty shall be at the rate established by the Secretary of the Treasury under Section 12 of the Contract Disputes Act of 1978 (41 U.S.C. 611) that is in effect on the day after the due date. This rate is referred to as the "Renegotiation Board Interest Rate," and it is published in the **Federal Register** semiannually on or about January 1 and July 1. The interest penalty shall accrue daily on the payment amount approved by the

LESSOR:  GOVERNMENT: 

Government and be compounded in 30-day increments inclusive from the first day after the due date through the payment date.

(3) Interest penalties will not continue to accrue after the filing of a claim for such penalties under the clause at 52.233-1, Disputes, or for more than one year. Interest penalties of less than \$1.00 need not be paid.

(4) Interest penalties are not required on payment delays due to disagreement between the Government and Contractor over the payment amount or other issues involving contract compliance or on amounts temporarily withheld or retained in accordance with the terms of the contract. Claims involving disputes, and any interest that may be payable, will be resolved in accordance with the clause at 52.233-1, Disputes.

(d) *Overpayments.* If the Lessor becomes aware of a duplicate payment or that the Government has otherwise overpaid on a payment, the Contractor shall—

(1) Return the overpayment amount to the payment office cited in the contract along with a description of the overpayment including the—

(i) Circumstances of the overpayment (e.g., duplicate payment, erroneous payment, liquidation errors, date(s) of overpayment);

(ii) Affected lease number; (iii) Affected lease line item or sub-line item, if applicable; and

(iii) Lessor point of contact.

(2) Provide a copy of the remittance and supporting documentation to the Contracting Officer.

19. 52.232-23 ASSIGNMENT OF CLAIMS (MAY 2014)

(Applicable to leases over the micro-purchase threshold.)

(a) The Contractor, under the Assignment of Claims Act, as amended, [31 U.S.C. 3727](#), [41 U.S.C. 6305](#) (hereafter referred to as “the Act”), may assign its rights to be paid amounts due or to become due as a result of the performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency. The assignee under such an assignment may thereafter further assign or reassign its right under the original assignment to any type of financing institution described in the preceding sentence.

(b) Any assignment or reassignment authorized under the Act and this clause shall cover all unpaid amounts payable under this contract, and shall not be made to more than one party, except that an assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in the financing of this contract.

(c) The Contractor shall not furnish or disclose to any assignee under this contract any classified document (including this contract) or information related to work under this contract until the Contracting Officer authorizes such action in writing.

20. PAYMENT (MAY 2011)

(a) When space is offered and accepted, the amount of American National Standards Institute/Building Owners and Managers Association Office Area (ABOA) square footage delivered will be confirmed by:

(1) The Government's measurement of plans submitted by the successful Offeror as approved by the Government, and an inspection of the space to verify that the delivered space is in conformance with such plans or

(2) A mutual on-site measurement of the [REDACTED], if the Contracting Officer determines that it is necessary.

LESSOR: [REDACTED] GOVERNMENT: [REDACTED]

(b) Payment will not be made for space which is in excess of the amount of ABOA square footage stated in the lease.

(c) If it is determined that the amount of ABOA square footage actually delivered is less than the amount agreed to in the lease, the lease will be modified to reflect the amount of ABOA space delivered and the annual rental will be adjusted as follows:

ABOA square feet not delivered multiplied by one plus the common area factor (CAF), multiplied by the rate per rentable square foot (RSF). That is: $(1+CAF) \times \text{Rate per RSF} = \text{Reduction in Annual Rent}$

21. 52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER—SYSTEM FOR AWARD MANAGEMENT (OCT 2018)

This clause is incorporated by reference.

22. 52.203-13 Contractor Code of Business Ethics and Conduct (JUN 2020)

(Applicable to leases over \$5.5 million total contract value and performance period is 120 days or more.)

This clause is incorporated by reference.

23. 552.270-32 COVENANT AGAINST CONTINGENT FEES (JUN 2011)

(Applicable to leases over the Simplified Lease Acquisition Threshold.)

(a) The Contractor warrants that no person or agency has been employed or retained to solicit or obtain this contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or, in its discretion, to deduct from the contract price or consideration, or otherwise recover the full amount of the contingent fee.

(b) *Bona fide agency*, as used in this clause, means an established commercial or selling agency (including licensed real estate agents or brokers), maintained by a Contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds itself out as being able to obtain any Government contract or contracts through improper influence.

(1) *Bona fide employee*, as used in this clause, means a person, employed by a Contractor and subject to the Contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds out as being able to obtain any Government contract or contracts through improper influence.

(2) *Contingent fee*, as used in this clause, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract.

(3) *Improper influence*, as used in this clause, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

24. 52.203-7 ANTI-KICKBACK PROCEDURES (JUN 2020)

(Applicable to leases over the Simplified Lease Acquisition Threshold.)

This clause is incorporated by reference.

LESSOR:  GOVERNMENT: 

25. 52.223-6 DRUG-FREE WORKPLACE (MAY 2001)

(Applicable to leases over the Simplified Lease Acquisition Threshold, as well as to leases of any value awarded to an individual.)

This clause is incorporated by reference.

26. 52.203-14 DISPLAY OF HOTLINE POSTER(S) (JUN 2020)

(Applicable to leases over \$5.5 Million total contract value and performance period is 120 days or more.)

(a) Definition.

United States, as used in this clause, means the 50 States, the District of Columbia, and outlying areas.

(b) Display of fraud hotline poster(s). Except as provided in paragraph (c)—

(1) During contract performance in the United States, the Contractor shall prominently display in common work areas within business segments performing work under this contract and at contract work sites—

(i) Any agency fraud hotline poster or Department of Homeland Security (DHS) fraud hotline poster identified in paragraph (b)(3) of this clause; and

(ii) Any DHS fraud hotline poster subsequently identified by the Contracting Officer.

(2) Additionally, if the Contractor maintains a company website as a method of providing information to employees, the Contractor shall display an electronic version of the poster(s) at the website.

(3) Any required posters may be obtained as follows:

Poster(s)	Obtain from
_____	_____
_____	_____

(Contracting Officer shall insert—

(i) Appropriate agency name(s) and/or title of applicable Department of Homeland Security fraud hotline poster); and

(ii) The website(s) or other contact information for obtaining the poster(s).)

(c) If the Contractor has implemented a business ethics and conduct awareness program, including a reporting mechanism, such as a hotline poster, then the Contractor need not display any agency fraud hotline posters as required in paragraph (b) of this clause, other than any required DHS posters.

LESSOR: _____ GOVERNMENT: _____

(d) *Subcontracts*. The Contractor shall include the substance of this clause, including this paragraph (d), in all subcontracts that exceed the threshold specified in Federal Acquisition Regulation 3.1004(b)(1) on the date of subcontract award, except when the subcontract—

- (1) Is for the acquisition of a commercial item; or
- (2) Is performed entirely outside the United States.

27. 552.270-30 PRICE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY (JUN 2011)

(Applicable to leases over the Simplified Lease Acquisition Threshold.)

(a) If the head of the contracting activity (HCA) or his or her designee determines that there was a violation of subsection 27(a) of the Office of Federal Procurement Policy Act, as amended (41 U.S.C. 423), as implemented in the Federal Acquisition Regulation, the Government, at its election, may—

- (1) Reduce the monthly rental under this lease by five percent of the amount of the rental for each month of the remaining term of the lease, including any option periods, and recover five percent of the rental already paid;
- (2) Reduce payments for alterations not included in monthly rental payments by five percent of the amount of the alterations agreement; or
- (3) Reduce the payments for violations by a Lessor's subcontractor by an amount not to exceed the amount of profit or fee reflected in the subcontract at the time the subcontract was placed.

(b) Prior to making a determination as set forth above, the HCA or designee shall provide to the Lessor a written notice of the action being considered and the basis thereof. The Lessor shall have a period determined by the agency head or designee, but not less than 30 calendar days after receipt of such notice, to submit in person, in writing, or through a representative, information and argument in opposition to the proposed reduction. The agency head or designee may, upon good cause shown, determine to deduct less than the above amounts from payments.

(c) The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law or under this lease.

28. 52.215-10 PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA (AUG 2011)

(Applicable when cost or pricing data are required for work or services over \$750,000.)
This clause is incorporated by reference.

29. 552.270-13 PROPOSALS FOR ADJUSTMENT (OCT 2016)

This clause is incorporated by reference.

30. CHANGES (MAR 2013)

(a) The LCO may at any time, by written order, direct changes to the Tenant Improvements within the Space, Building Security Requirements, or the services required under the Lease.

LESSOR:  GOVERNMENT: 

(b) If any such change causes an increase or decrease in Lessor's costs or time required for performance of its obligations under this Lease, whether or not changed by the order, the Lessor shall be entitled to an amendment to the Lease providing for one or more of the following:

- (1) An adjustment of the delivery date;
- (2) An equitable adjustment in the rental rate;
- (3) A lump sum equitable adjustment; or
- (4) A change to the operating cost base, if applicable.

(c) The Lessor shall assert its right to an amendment under this clause within 30 days from the date of receipt of the change order and shall submit a proposal for adjustment. Failure to agree to any adjustment shall be a dispute under the Disputes clause. However, the pendency of an adjustment or existence of a dispute shall not excuse the Lessor from proceeding with the change as directed.

(d) Absent a written change order from the LCO, or from a Government official to whom the LCO has explicitly and in writing delegated the authority to direct changes, the Government shall not be liable to Lessor under this clause.

31. 552.215-70 EXAMINATION OF RECORDS BY GSA (JUN 2016)

(Applicable to leases over the Simplified Lease Acquisition Threshold.)
This clause is incorporated by reference.

32. 52.215-2 AUDIT AND RECORDS—NEGOTIATION (JUN 2020)

(Applicable to leases over the Simplified Lease Acquisition Threshold.)
This clause is incorporated by reference.

33. 52.233-1 DISPUTES (MAY 2014)

This clause is incorporated by reference.

34. 52.222-26 EQUAL OPPORTUNITY (SEP 2016)

This clause is incorporated by reference.

35. 52.222-21 PROHIBITION OF SEGREGATED FACILITIES (APR 2015)

This clause is incorporated by reference.

36. 52.219-28 POST-AWARD SMALL BUSINESS PROGRAM REREPRESENTATION (SEP 2021)

(Applicable to leases exceeding the micro-purchase threshold.)
This clause is incorporated by reference.

LESSOR:  GOVERNMENT: 

37. 52.222-35 EQUAL OPPORTUNITY FOR VETERANS (JUN 2020)

(Applicable to leases \$150,000 or more, total contract value.)

(a) *Definitions.* As used in this clause-

“Active duty wartime or campaign badge veteran,” “Armed Forces service medal veteran,” “disabled veteran,” “protected veteran,” “qualified disabled veteran,” and “recently separated veteran” have the meanings given at Federal Acquisition Regulation (FAR) [22.1301](#).

(b) Equal opportunity clause. The Contractor shall abide by the requirements of the equal opportunity clause at 41 CFR 60-300.5(a), as of March 24, 2014. This clause prohibits discrimination against qualified protected veterans, and requires affirmative action by the Contractor to employ and advance in employment qualified protected veterans.

(c) Subcontracts. The Contractor shall insert the terms of this clause in subcontracts valued at or above the threshold specified in FAR [22.1303](#)(a) on the date of subcontract award, unless exempted by rules, regulations, or orders of the Secretary of Labor. The Contractor shall act as specified by the Director, Office of Federal Contract Compliance Programs, to enforce the terms, including action for noncompliance. Such necessary changes in language may be made as shall be appropriate to identify properly the parties and their undertakings.

38. 52.222-36 EQUAL OPPORTUNITY FOR WORKERS WITH DISABILITIES (JUN 2020)

(Applicable to leases over \$15,000 total contract value.)

(a) Equal opportunity clause. The Contractor shall abide by the requirements of the equal opportunity clause at 41 CFR 60-741.5(a), as of March 24, 2014. This clause prohibits discrimination against qualified individuals on the basis of disability, and requires affirmative action by the Contractor to employ and advance in employment qualified individuals with disabilities.

(b) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order in excess of the threshold specified in Federal Acquisition Regulation (FAR) [22.1408](#)(a) on the date of subcontract award, unless exempted by rules, regulations, or orders of the Secretary, so that such provisions will be binding upon each subcontractor or vendor. The Contractor shall act as specified by the Director, Office of Federal Contract Compliance Programs of the U.S. Department of Labor, to enforce the terms, including action for noncompliance. Such necessary changes in language may be made as shall be appropriate to identify properly the parties and their undertakings.

39. 52.222-37 EMPLOYMENT REPORTS ON VETERANS (JUN 2020)

(Applicable to leases \$150,000 or more, total contract value.)

*This clause is incorporated by reference.***40. 52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (JUN 2020)**

(Applicable to leases over \$35,000 total contract value.)

*This clause is incorporated by reference.***41. 52.215-12 SUBCONTRACTOR CERTIFIED COST OR PRICING DATA (JUN 2020)**

(Applicable if over \$750,000 total contract value.)

*This clause is incorporated by reference.*LESSOR:  GOVERNMENT: 

42. 52.219-8 UTILIZATION OF SMALL BUSINESS CONCERNS (OCT 2018)

(Applicable to leases over the Simplified Lease Acquisition Threshold.)
This clause is incorporated by reference.

43. 52.219-9 SMALL BUSINESS SUBCONTRACTING PLAN (SEP 2021) ALTERNATE III (JUN 2020)

(Applicable to leases over \$750,000 total contract value.)
This clause is incorporated by reference.

44. 52.219-16 LIQUIDATED DAMAGES—SUBCONTRACTING PLAN (SEP 2021)

(Applicable to leases over \$750,000 total contract value.)
This clause is incorporated by reference.

45. 52.204-10 REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS (JUN 2020)

(Applicable if over \$30,000 total contract value.)
This clause is incorporated by reference.

46. 52.204-25 PROHIBITION ON CONTRACTING FOR CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT (AUG 2020)

(a) *Definitions.* As used in this clause—

Backhaul means intermediate links between the core network, or backbone network, and the small subnetworks at the edge of the network (e.g., connecting cell phones/towers to the core telephone network). Backhaul can be wireless (e.g., microwave) or wired (e.g., fiber optic, coaxial cable, Ethernet).

Covered foreign country means The People's Republic of China.

Covered telecommunications equipment or services means—

(1) Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities);

(2) For the purpose of public safety, security of Government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities);

(3) Telecommunications or video surveillance services provided by such entities or using such equipment; or

(4) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Critical technology means—

(1) Defense articles or defense services included on the United States Munitions List set forth in the International Traffic in Arms Regulations under subchapter M of chapter I of title 22, Code of Federal Regulations;

(2) Items included on the Commerce Control List set forth in Supplement No. 1 to part 774 of the Export Administration Regulations under subchapter C of chapter VII of title 15, Code of Federal Regulations, and controlled—

(i) Pursuant to multilateral regimes, including for reasons relating to national security, chemical and biological weapons proliferation, nuclear nonproliferation, or missile technology; or

(ii) For reasons relating to regional stability or surreptitious listening;

LESSOR:  GOVERNMENT: 

(3) Specially designed and prepared nuclear equipment, parts and components, materials, software, and technology covered by part 810 of title 10, Code of Federal Regulations (relating to assistance to foreign atomic energy activities);

(4) Nuclear facilities, equipment, and material covered by part 110 of title 10, Code of Federal Regulations (relating to export and import of nuclear equipment and material);

(5) Select agents and toxins covered by part 331 of title 7, Code of Federal Regulations, part 121 of title 9 of such Code, or part 73 of title 42 of such Code; or

(6) Emerging and foundational technologies controlled pursuant to section 1758 of the Export Control Reform Act of 2018 (50 U.S.C. 4817).

Interconnection arrangements means arrangements governing the physical connection of two or more networks to allow the use of another's network to hand off traffic where it is ultimately delivered (e.g., connection of a customer of telephone provider A to a customer of telephone company B) or sharing data and other information resources.

Reasonable inquiry means an inquiry designed to uncover any information in the entity's possession about the identity of the producer or provider of covered telecommunications equipment or services used by the entity that excludes the need to include an internal or third-party audit.

Roaming means cellular communications services (e.g., voice, video, data) received from a visited network when unable to connect to the facilities of the home network either because signal coverage is too weak or because traffic is too high.

Substantial or essential component means any component necessary for the proper function or performance of a piece of equipment, system, or service.

(b) *Prohibition.* (1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. The Contractor is prohibited from providing to the Government any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR [4.2104](#).

(2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into a contract, or extending or renewing a contract, with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract.

(c) *Exceptions.* This clause does not prohibit contractors from providing—

(1) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(2) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(d) *Reporting requirement.* (1) In the event the Contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the Contractor is notified of such by a subcontractor at any tier or by any other source, the Contractor shall report the information in paragraph (d)(2) of this clause to the Contracting Officer, unless elsewhere in this contract are established procedures for reporting the information; in the case of the Department of Defense, the Contractor shall report to the website at <https://dibnet.dod.mil>. For indefinite delivery contracts, the Contractor shall report to the Contracting Officer for the indefinite delivery contract and the Contracting Officer(s) for any affected order or, in the case of the Department of Defense, identify both the indefinite delivery contract and any affected orders in the report provided at <https://dibnet.dod.mil>.

(2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause

(i) Within one business day from the date of such identification or notification: the contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number,

LESSOR:  GOVERNMENT: 

manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: any further available information about mitigation actions undertaken or recommended. In addition, the Contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

(e) *Subcontracts*. The Contractor shall insert the substance of this clause, including this paragraph (e) and excluding paragraph (b)(2), in all subcontracts and other contractual instruments, including subcontracts for the acquisition of commercial items.

47. *INTENTIONALLY DELETED*

48. 52.204-19 INCORPORATION BY REFERENCE OF REPRESENTATIONS AND CERTIFICATIONS (DEC 2014)

This clause is incorporated by reference.

LESSOR:  GOVERNMENT: 

Exhibit F - Foreign Ownership & Financing

Offerors' Initial Representation: Complete the representation below, sign and return to the LCO or his/her designee. NOTE: The "Offeror," as used on this form, is the owner of the property offered, not an individual or agent representing the owner.

Lessors' Representation: Complete the annual representation below, sign and return to the ALCO or his/her designee via GSA's Real Estate Tax portal at rel.gsa.gov, or subsequent portal.

Novation Transferees' Representation: Complete the representation below, sign and return to the ALCO or his/her designee along with other required novation documentation.

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552.270-33 Foreign Ownership and Financing Representation for High-Security Leased Space.

FOREIGN OWNERSHIP AND FINANCING REPRESENTATION FOR HIGH-SECURITY LEASED SPACE (JUN 2021)

(a) Definitions. As used in this clause—

Financing means the process of raising or providing funds through debt or equity for purposes of meeting the requirements of the Lease, including, but not limited to, acquisition, maintenance, and construction of, or improvements to, the Property.

Foreign entity means a:

- (i) Corporation, company, business association, partnership, society, trust, or any other nongovernmental entity, organization, or group that is headquartered or organized under the laws of a country that is not the United States or a state, local government, tribe, or territory within the United States; or
- (ii) Government or governmental instrumentality that is not the United States Government.

Foreign person means an individual who is not:

- (i) A United States citizen; or
- (ii) An alien lawfully admitted for permanent residence in the United States.

Highest-level owner means the entity that owns or controls an immediate owner of the offeror or Lessor, or that owns or controls one or more entities that control an immediate owner of the offeror or Lessor. No entity owns or exercises control of the highest-level owner.

Immediate owner means an entity, other than the offeror or Lessor, that has direct control of the offeror or Lessor. Indicators of control include, but are not limited to, one or more of the following: ownership or interlocking management, identity of interests

LESSOR: EE GOVERNMENT: 

GSAR 552.270-33 Foreign Ownership and
Financing Representation for High-Security
Leased Space JUN 2021
Page 1

among family members, shared facilities and equipment, and the common use of employees.

Unique entity identifier means a number or other identifier used to identify a specific commercial, nonprofit, or Government entity. See www.sam.gov for the designated entity for establishing unique entity identifiers.

(b) **Timing.** The Offeror or Lessor shall complete this representation when submitting a proposal. If the Offeror is the successful awardee, the Offeror (now Lessor) shall review, update, and provide this representation on an annual basis, reflecting all changes to immediate owner, highest-level owner and financing during the preceding 1-year period, starting one year from the Lease Term Effective Date through final payment of any contract. If the Lessor intends to transfer the lease to a successor in interest under the circumstances set forth in FAR 42.1204, the Lessor shall submit this representation to the Lease Contracting Officer with any request to novate the lease. The Offeror or Lessor is responsible for the currency, accuracy and completeness of the data disclosed, and for any liability resulting from the Government's reliance on inaccurate or incomplete data.

(c) **Immediate owner.**

(1) The Offeror or Lessor represents that it ☐ does or ☐ does not have an immediate owner.

(2) If the Offeror or Lessor indicates "does" in paragraph (c)(1) of this clause, then enter the following information for the immediate owner. If the offeror or Lessor has more than one immediate owner (e.g., joint venture), then the offeror or Lessor shall provide the information for each entity.

Legal name (do not use a "doing business as" name)	
Unique entity identifier (if available)	

(3) If the Offeror or Lessor indicates "does" in paragraph (c)(1) of this clause, then complete this additional representation: Is the immediate owner a foreign entity?:

☐ Yes or ☒ No.

(4) If the Offeror or Lessor indicates "does" in paragraph (c)(1) of this clause, then complete this additional representation: Is the immediate owner a foreign person?:

☐ Yes or ☒ No.

(5) If the Offeror or Lessor indicates "Yes" in either paragraph (c)(3) or (4) of this clause, indicating that there is foreign ownership (as a foreign entity or foreign person), then enter the following information for the foreign owner (respond for each as applicable).

LESSOR: (b) (6) GOVERNMENT [REDACTED]

Physical address	
Country	

(d) Highest-level owner.

(1) The Offeror or Lessor represents that the immediate owner, if any, ☐ is or ☐ is not owned or controlled by another entity?

(2) If the Offeror or Lessor indicates "is" in paragraph (d)(1) of this clause, indicating that the immediate owner is owned or controlled by another entity, then enter the following information for the highest-level owner.

Legal name (do not use a "doing business as" name)	
Unique entity identifier (if available)	

(3) If the Offeror or Lessor indicates "is" in paragraph (d)(1) of this clause, then complete this additional representation: Is the highest-level owner a foreign entity?:

☐ Yes or ☐ No.

(4) If the Offeror or Lessor indicates "is" in paragraph (d)(1) of this clause, then complete this additional representation: Is the highest-level owner a foreign person?:

☐ Yes or ☐ No.

(5) If the Offeror or Lessor indicates "Yes" in either paragraph (d)(3) or (4) of this clause, indicating that there is foreign ownership (as a foreign entity or foreign person), then enter the following information for the foreign owner (respond for each as applicable).

Physical address	
Country	

(e) Financing entity.

(1) The Offeror or Lessor represents that the financing ☐ does or ☐ does not involve a foreign entity?

(2) The Offeror or Lessor represents that the financing ☐ does or ☐ does not involve a foreign person?

(3) If the Offeror or Lessor indicates "does" in either paragraph (e)(1) or (2) of this clause, indicating foreign financing (as a foreign entity or foreign person), then enter the following information for the foreign financing (respond for each as applicable).

Legal name (do not use a "doing business as" name)	
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LESSOR (b) (6) GOVERNMENT

Unique entity identifier (if available)	
--	--

Physical address	
Country	

(End of clause)

OFFEROR OR LESSOR NAME AND SIGNATURE	<u>EDUARD V ZAPATA</u>	<u>1/11/22</u>
	Name (b) (6) Signature	

LESSOR GOVERNMENT

GSAR 552.270-33 Foreign Ownership and
Financing Representation for High-Security
Leased Space JUN 2021
Page 4

Exhibit G - Small Business Subcontracting Plan

PS Business Parks, Inc.
INDIVIDUAL SMALL BUSINESS SUBCONTRACTING PLAN

I. IDENTIFICATION DATA: [COMPLETE THE FOLLOWING]Address: **8380 Alban Road, Springfield, VA 22150**Date Prepared: **Tuesday, April 12, 2022**Description of Lease: **69,897 RSF**Request for Lease Proposal Number: **0VA2531**

Lease Number (if existing lease):

Insert dates below for the lease duration, if known (or insert N/A if the lease does not include specified option period).

II. LEASE PERIODS AND ESTIMATED LEASE DOLLAR VALUEFirm Term: **15 years**Non-Firm Term: **N/A**Option: **N/A****Total Estimated Lease Value - \$35,565,923.50***(Provide separate estimate for firm term, non-firm term and option, if any:*Firm Term **\$35,565,923.50**Non-Firm Term: **\$N/A**Option Period : \$ **N/A**Place of Performance: **8380 Alban Road, Springfield, VA 22150**DUNS Number: **609927202****III. GOALS:***FAR 52.219-9(d) requires that the subcontracting plan include:**(1) Goals expressed in terms of percentages of total planned subcontracting dollars, for the use of small business (SB) concerns as subcontractors**(2) Statement of total dollars planned to be subcontracted for an individual contract plan.**(3) Separate percentage goals and dollars for socio-economic small businesses¹⁴, veteran-owned small business (VOSB), service-disabled veteran-owned small business (SDVOSB), HUBZone small business, small disadvantaged business (SDB)¹⁵ (including ANCs and Indian tribes) and women-owned small business (WOSB) concerns as subcontractors.*¹⁴ Including Alaskan Native Corporations (ANCs) and Indian tribes¹⁵ Including ANCs and Indian tribes

Individual plans will reflect lease-specific goals and shall contain separate statements and goals for the firm term and separately for the non-firm term and any option. Note that dollars and percentages to large and total small businesses (all inclusive) must equal the total subcontracted to all categories in both dollars and percentages.

EACH LESSOR IS EXPECTED TO OFFER THE "MAXIMUM PRACTICABLE OPPORTUNITIES" TO EACH TYPE OF SMALL BUSINESS CONCERN (SDB, WOSB, VOSB, SDVOSB and HUBZONE) TO PARTICIPATE IN THE LEASE CONSISTENT WITH "GOOD FAITH EFFORTS" AND SUPPORTED BY THEIR REPORTS AND RECORDS.

COMPLETE FORMAT BELOW:

Note that a separate table is required for each term and option of the lease:

- **firm term**
- **non-firm term, if any**
- **option, if any**

A separate table is required for the total of firm + non-firm + option.

REMEMBER: the dollars listed must reflect the entire term. For example, if the firm term is 10 years, the subcontracted dollars listed must cover the entire 10 year period.

Best practice: show growth in goal achievement from one term to the other.

PS Business Parks, Inc. provides the following separate dollar and percentage goals, which are a percentage of the total subcontracting dollars for each business category:

Firm Term (expressed in dollars and percentages of the total dollars planned to be subcontracted) Years 1-15		
PLANNED SUBCONTRACTING TO:	DOLLARS	PERCENT
1. Total Dollars to be Subcontracted ($2 + 3 = 1$) large and all small businesses must equal total amount to be subcontracted (both \$ and %)	(b)	(4)
2. Large Businesses (Other than Small)		
3. All Small Businesses (including ANCs & Indian tribes)		
4. Veteran-Owned Small Businesses (VOSB) ¹⁶		
5. Service-Disabled Veteran-Owned Small Businesses (SDVOSB)		
6. HUBZone Small Business (HUBZone)		
7. Small Disadvantaged Businesses (SDB) (including ANCs & Indian tribes)		
8. Women-Owned Small Businesses (WOSB)		

Complete the following tables for non-firm term and any option:

¹⁶ Items 4 through 8 stand on their own. They do not equate to the small business total. Refer to "How to do the math" tips in the instructions.

If applicable: **N/A**

If applicable (for each option): **N/A**



Total (Firm term + Non-firm Term + Option(s)):

The Total Goals (sum of all periods, base + option(s)) table below provides a comprehensive look for government reviewers¹⁷ of the plan at the subcontracting opportunities for the entire lease

- *Add the total dollars estimated for each period of the contract and socioeconomic category and place the amounts in the spaces below.*
- *Compute the percentages for each category for the entire lease*

TOTAL LEASE GOALS (expressed in dollars and percentages of total dollars planned to be subcontracted)		
PLANNED SUBCONTRACTING TO:	DOLLARS	PERCENT
1. Total Dollars to be Subcontracted (2 + 3 = 1) large and all small businesses must equal total amount to be subcontracted (both \$ and %)	(b)	(4)
2. Large Businesses (Other than Small)		
3. All Small Businesses (including ANCs & Indian tribes)		
4. Veteran-Owned Small Businesses (VOSB)		
5. Service-Disabled Veteran-Owned Small Businesses (SDVOSB)		
6. HUBZone Small Business (HUBZone)		
7. Small Disadvantaged Businesses (SDB) (including ANCs & Indian tribes)		
8. Women-Owned Small Businesses (WOSB)		

IV. PRINCIPAL TYPES OF SUPPLIES AND SERVICES TO BE SUBCONTRACTED:

Describe the principal types of supplies and services to be subcontracted and an identification of types of supplies or services planned for subcontracting to SB (including ANCs and Indian tribes), VOSB, SDVOSB, HUBZone, SDB (including ANCs and Indian tribes), and WOSB concerns.

B. FAR clause 52.219-9(d)(3) requires a description of the principal types of supplies and services to be subcontracted and an identification of types planned for subcontracting to SB, VOSB, SDVOSB, HUBZone, SDB (including ANCs and Indian tribes), and WOSB concerns. Check all that apply below, ensuring that at least one item is indicated for each column.

If assistance is needed to locate small business sources, contact your local Small Business Administration Commercial Market Representative via www.sba.gov/localresources, or access the Dynamic Small Business Search database at http://dsbs.sba.gov/dsbs/search/dsp_dsbs.cfm. You may also post solicitations for small business opportunities on SBA's SUB-Net at <https://eweb1.sba.gov/subnet/search/index.cfm>.

The principal types of supplies and/or services that **PS Business Parks, Inc.** anticipates to be subcontracted and the identification of the type of business concern planned are as follows. GSA requests inserting the applicable NAICS code¹⁸ under the description:

¹⁷ The FAR requires the subcontracting plan to be reviewed and negotiated by the contracting officer with input from the Agency's

small business technical advisor (SBTA) as well as the Small Business Administration's Procurement Center Representative (SBA PCR). COs are required to consider the recommendations by the agency SBTA and the SBA PCR.

Business Category or Size
Construction

Supplies/Services [Insert individual trades as appropriate (e.g. Plumbing, Drywall, etc.)]	Large	Small	VOSB	SDVOSB	HUBZone	SDB	WOSB
GC Services on Tenant Improvement oversite and buildout (236220)	X						X
Drywall (238310), electrical (238210), and plumbing services (238220)		X					
Painting (238320)			X	X			
Technology and hookup communication wiring (238210)					X		
Clean up (561720)						X	
Supplies and materials (444190)	X	X	X			X	X

Business Category or Size
Recurring Services

Supplies/Services [Insert as appropriate (e.g. Janitorial, Landscaping, etc.)]	Large	Small	VOSB	SDVOSB	HUBZone	SDB	WOSB
Janitorial (561720)			X				
HVAC maintenance and repairs (238220)	X						
Lawn Maintenance (561730)			X				X
Elevator Maintenance (238290)	X				X		
Painting (238320)			X	X		X	
Fire Alarm Maintenance (922160)	X						
Electrical Maintenance (238210)						X	

Business Category or Size
Other Subcontracted Supplies and/or Services

Supplies/Services	Large	Small	VOSB	SDVOSB	HUBZone	SDB	WOSB
Purchasing of goods and supplies (444190, 423850)						X	

¹⁸ NAICS codes are found at:

<https://www.census.gov/eos/www/naics/&sa=D&ust=1602006164214000&usq=AFQjCNFC3JoeJ97-L26UvPx-lkpYwV-7ug>

Explain in the narrative of this section any low goals¹⁹ and the actions planned in order to support your plan. Otherwise, the CO, GSA Office of Small and Disadvantaged Business Utilization or the SBA may deem your plan unacceptable preventing lease award. **NOTE: "zero" is not considered a "positive" goal which the FAR requires. Having a goal will provide the incentive for your company to make a "good faith effort" in fostering opportunities for SB, SDB, WOSB, VOSB, SDVOSB and HUBZone SB. After award, the contracting officer assesses whether you have made a "good faith effort" to implement the subcontracting plan.**

V. DESCRIPTION OF METHOD USED TO DEVELOP SUBCONTRACTING GOALS:

Describe the method used to develop the subcontracting goals. Explain or state the basis for establishing your proposed goals (i.e. based on historical data and experience, market research, etc.) Provide a justification for any low goal(s) and other explanations for your challenges in this section.

PS Business Parks, Inc. used the following method to develop the subcontracting goals:

In accordance with provisions of FAR 52.219-9(d)(1), G&I IX 2700 N Central Ave, LLC has elected to develop its subcontracting goals based on percentages of total planned subcontracting dollars for the use of SBC/SDB/WOB/HUBZ/VOB/SDVOB's as subcontractors. Specifically, all subcontractors that contribute directly to contract performance will be included as a part of each subcontracting plan's commitment goals. When developing subcontracting goals, the responsible buyers, subcontract specialist review the applicable scope of work to identify those material and equipment items that can potentially be procured from SBC/SDB/WOB/HUBZ/VOB/SDVOB so that the SBLO can be advised accordingly. The total plan dollars available to subcontract with SBC/SDB/WOB/HUBZ/VOB/SDVOB's is then allocated between these groups as goals. Direct commitments are incorporated in these estimates.

- 1) Assistance for SBC/SDB/WOB/HUBZ/VOB/SDVOB (Small Business/es) concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation of such concerns. Where the contractor's list of potential Small Business subcontractors are excessively long, reasonable efforts shall be made to give all such concerns an opportunity to compete over a period of time.
- 2) Provision of adequate and timely consideration of the potentialities of Small Business concerns in all "make or buy" decisions.
- 3) Counseling and discussion of subcontracting opportunities with representatives of Small Business firms.
- 4) Provision of notice to all applicable subcontractors concerning penalties and remedies for misrepresentation of business status as Small Businesses for the purpose of obtaining a subcontract that is to be included as part of a goal contained in our subcontracting plan.

VI. DESCRIPTION OF METHOD USED TO IDENTIFY POTENTIAL SOURCES:

Describe the method used to identify potential sources for solicitation purposes (e.g., existing company source lists, the System for Award Management (SAM), veterans service organizations, the National Minority Purchasing Council Vendor Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small, HUBZone, small disadvantaged, and

women-owned small business trade associations). A firm may rely on the information contained in SAM²⁰ as an accurate representation of a concern's size and ownership characteristics for the purposes of maintaining SB, VOSB, SDVOSB, HUBZone, SDB, and WOSB source lists.

PS Business Parks, Inc. identifies potential subcontractors using the following source lists and organizations:

- 1) Interpret base list of suppliers, System for Award Management (SAM) or SBA's Dynamic Small Business Search;
- 2) A personal computer database containing a list of capable SBC/SDB/WOB/HUBZ/VOB/SDVOB's, and
- 3) The participation in small and small disadvantaged business trade fairs. Through these efforts, G&I IX 2700 N Central Ave, LLC's procurement professionals will be able to optimize the potential for SBC/SDB/WOB/HUBZ/VOB/SDVOB's to compete for company subcontracts.

¹⁹ Low goals are those less than the government-wide statutory goals of 23% for SB; 5% for SDB; 5% for WOSB; 3% for SDVOSB; and, 3% for HUBZone SB.

²⁰ Use of SAM as its source list does not relieve a firm of its responsibilities (e.g., outreach, assistance, counseling, or publicizing subcontracting opportunities) in this clause.

VII. INCLUSION OF INDIRECT COSTS IN ESTABLISHING GOALS: *State whether or not indirect costs were used in establishing subcontracting goals for SB (including ANCs and Indian tribes), VOSB, SDVOSB, HUBZone, SDB (including ANCs and Indian tribes), and WOSB concerns.*²¹

Indirect costs _____ HAVE BEEN (or) **X** HAVE NOT BEEN included in the dollar and percentage subcontracting goals stated above.

If indirect costs HAVE been included²², the method used to determine the proportionate share of indirect costs to be incurred with small business concerns was as follows:

VIII. PROGRAM ADMINISTRATOR: *FAR clause 52.219-9(d)(7) requires the name of the individual employed by the Offeror who will administer the Offeror's subcontracting program, and a description of the duties of the individual. Please add the contact information for this person (telephone number and email address), in case of questions, and provide an alternate point of contact, if applicable.*

Name:	Matt Leuck
Title/Position:	Property Manager
Address:	7927 Jones Branch Drive, Ste 1300,
City/State/Zip Code:	Tysons, VA 22102
Telephone number:	703-876-4848
Email Address:	<u>mleuck@psbusinessparks.com</u>

Alternate POC with contact information:

(b) (6)

Duties: FAR clause 52.219-9(e) requires the contractor to perform the following functions in order to effectively implement this plan to the extent, consistent with

²¹ Indirect costs represent the expenses of doing business that are NOT easily identified with a specific project (i.e. contract or grant) but are generally recognized as ordinary and necessary for the general operation of the Contractor's organization and the conduct of activities it performs. Types of indirect costs include routine supplies and general and administrative (G&A) expenses. However, fringe benefits (e.g. services or benefits provided to employees such as health insurance, payroll taxes, pension contribution, etc.), are NOT considered subcontracting and shall be excluded.

²² Including indirect costs may be beneficial to avoid "0" dollar goals. If indirect costs are included in the goals, these costs must be included in the Standard Form 294 report submitted after award.

efficient contract performance **[GSA requires acknowledgement of these required duties by including the following in the subcontracting plan]:**

1. Assist SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the Contractor's lists of potential SB, VOSB, SDVOSB, HUBZone, SDB and WOSB subcontractors are excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.
2. Provide adequate and timely consideration of the potentialities of SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns in all "make-or-buy" decisions.
3. Counsel and discuss subcontracting opportunities with representatives of SB, VOSB, SDVOSB, HUBZone, SDB and WOSB firms.
4. Confirm that a subcontractor representing itself as a HUBZone small business concern is identified as a certified HUBZone small business concern by accessing the System For Award Management (SAM) database or by contacting SBA.
5. Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as SB, VOSB, SDVOSB, HUBZone, SDB and WOSB for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the Contractor's subcontracting plan.
6. For all competitive subcontracts over the simplified acquisition threshold, as defined in FAR [2.101](#) on the date of subcontract award, in which a small business concern received a small business preference, upon determination of the successful subcontract offeror, prior to award of the subcontract the Contractor must inform each unsuccessful small business subcontract offeror in writing of the name and location of the apparent successful offeror and if the successful subcontract offeror is a SB, VOSB, SDVOSB, HUBZone, SDB or WOSB.
7. Assign each subcontract the NAICS code and corresponding size standard that best describes the principal purpose of the subcontract.

Other ways the Plan Administrator can ensure the company meets the goals of the plan **demonstrating "good faith effort"****[Check those that will be done under this plan]:**

☐ Develop and promote company/division policy statements that demonstrate the company's/division's support for awarding contracts and subcontracts to SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns.

☒ Develop and maintain bidders' lists of SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns from all possible sources.

☒ Ensure periodic rotation of potential subcontractors on bidders' lists.

___ Ensure that SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns are included on the bidders' list for every subcontract solicitation for products and services they are capable of providing.

X___ Ensure that subcontract procurement "packages" are designed to permit the maximum possible participation of SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns

X___ Review subcontract solicitations to remove statements, clauses, etc., which might tend to restrict or prohibit SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns.

X___ Ensure that the subcontract bid proposal review board documents its reasons for not selecting any low bids submitted by SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns.

X___ Oversee the establishment and maintenance of contract and subcontract award records.

___ Attend or arrange for the attendance of company counselors at Business Opportunity Workshops, Minority Business Enterprise Seminars, Trade Fairs, etc.

X___ Directly or indirectly counsel SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns on subcontracting opportunities and how to prepare bids to the company.

___ Conduct or arrange training for purchasing personnel regarding the intent and impact of Section 8(d) of the Small Business Act on purchasing procedures.

___ Develop and maintain an incentive program for buyers that support the subcontracting program.

X___ Monitor the company's performance and make any adjustments necessary to achieve the subcontract plan goals.

___ Prepare and submit timely reports as outlined in Section VII.

X___ Coordinate the company's activities during compliance reviews by Federal agencies.

___ Promote opportunities for small businesses on the company website

X___ (List any additional duties)

Act as an intermediary between GSA, the Small Business Administration, SBC/SDB/WOB/HUBZ/VOB/SDVOB's, and the Company in matters pertaining to the administration of this plan.

IX. EQUITABLE OPPORTUNITY:

FAR clause 52.219-9(d)(8) requires a description of the efforts the offeror will make to assure that SB, VOSB, SDVOSB, HUBZone, SDB and WOSB concerns have an equitable opportunity to compete for subcontracts.

PS Business Parks, Inc. will make every effort to ensure that all small business concerns have an equitable opportunity to compete for subcontracts. These efforts may include one or more of the following activities: *(please indicate which of the following apply or adapt list to fit your company's efforts)*

A. Outreach efforts to obtain sources by:

- ☒ **Contacting minority and small business trade associations**
- ☒ **Contacting business development organizations**
- ☒ **Requesting sources from the Dynamic Small Business Search ([Link to Dynamic Small Business Search](#))**
- ☒ **Attending small and minority business trade fairs and procurement conferences**

B. Internal efforts to guide and encourage purchasing personnel:

- ☒ **Presenting workshops, seminars and training programs**
- ☒ **Establishing, maintaining and using small, hubzone small, small disadvantaged, women-owned small, veteran-owned small, and service-disabled veteran-owned small business source lists, guides, and other data for soliciting subcontracts**
- ☒ **Monitoring activities to evaluate compliance with the subcontracting plan**

C. Other Additional efforts: *(Please describe below.)*

PS Business Parks, L.P will use the (1) internet-based list of suppliers, Dynamic Small Business Search, from the U.S. Small Business Administration; (2) a personal computer database containing a list of capable SBC/SDB/WOB/HUBZ/VOB/SDVOB's, and (3) the participation in small and small disadvantaged business trade fairs. Through these efforts, G&I IX 2700 N Central Ave, LLC's procurement professionals will be able to optimize the potential for SBC/SDB/WOB/HUBZ/VOB/SDVOB's to compete for company subcontracts.

X. ASSURANCES OF CLAUSE INCLUSION AND FLOW DOWN:

FAR clause 52.219-9(d)(9) requires several assurances that the offeror will include the clause at 52.219-8, Utilization of Small Business Concerns (see 19.708(a)), in all subcontracts that offer further subcontracting opportunities, and that the offeror will require all subcontractors (except small business concerns) that receive subcontracts in excess of \$750,000 (\$1,500,000 for construction) to adopt a plan that complies with the requirements of this clause (see 19.708(b)).

PS Business Parks, Inc. agrees to include the FAR Clause 52.219-8, "Utilization of Small Business Concerns" in all subcontracts that offer further subcontracting opportunities, and will require all subcontractors (except small business concerns) that receive subcontracts in excess of \$750,000 (\$1,500,000 for construction) to adopt a plan that complies with the requirements of the clause at 52.219-9, Small Business Subcontracting Plan.

XI. ASSIGNMENT OF SIZE STANDARDS TO SUBCONTRACTS

PS Business Parks, Inc. agrees to assign North American Industry Classification System (NAICS) codes to subcontracts and further agrees to provide the socio-economic status of the successful subcontractor in the notification to the unsuccessful offerors for the subcontracts in accordance with FAR 52.219-9.

XII. REPORTING AND COOPERATION:

FAR 52.219-9(d)(10) requires assurances that the offeror will do the following:

PS Business Parks, Inc. agrees to:

- (10)(i) Cooperate in any studies or surveys as may be required;
- (ii) Submit periodic reports so that the Government can determine the extent of compliance by the offeror with the subcontracting plan;
- (iii) Submit the SF 294 (Individual Subcontract Report)** to the LCO, and the Summary Subcontract Report (SSR) ** using the Electronic Subcontracting Reporting System (eSRS) (<http://www.esrs.gov>), following the instructions in the eSRS;
- (iv) Ensure that its subcontractors with subcontracting plans agree to submit the SF 294 to the LCO and/or the SSR** using the eSRS;
- (v) Provide its prime contract number and its DUNS number and the e-mail address of the Government or Contractor official responsible for acknowledging or rejecting the reports, to all first-tier subcontractors with subcontracting plans so they can enter this information into the eSRS when submitting their reports; and
- (vi) Require each subcontractor with a subcontracting plan provide the prime contract number and its own DUNS number, and the e-mail address of the Government or Contractor official responsible for acknowledging or rejecting the reports, to its subcontractors with subcontracting plans.

Reports are to be submitted within 30 days after the close of each calendar period as indicated in the following chart:

<u>Calendar Period</u>	<u>Report Due</u>	<u>Date Due</u> ²³	<u>Submit Report to:</u>
10/01--03/31	SF294*	04/30	LCO
04/01--09/30	SF294*	10/30	LCO
10/01--09/30	SSR**	10/30	eSRS

***SF 294s are submitted until further notice in lieu of the ISRs.**

****File the SSRs in the government-wide eSRS system as required by FAR clause 52.219-9(l).**

ASSISTANCE IN REPORT PREPARATION CAN BE FOUND IN THE ATTACHMENT, REPORTING INSTRUCTIONS FOR CONTRACTORS, or in guidance documents on the eSRS home page (<https://esrs.gov>), and from your local SBA Commercial Marketing Representative.

XIII. RECORDKEEPING:

FAR clause 52.219-9(d)(11) requires a description of the types of records that will be maintained concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of the efforts to locate SB (including ANCs and Indian tribes), VOSB, SDVOSB, HUBZone, SDB (including ANCs and Indian tribes), and WOSB concerns and award subcontracts to them.

PS Business Parks, Inc. will maintain records concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of efforts to locate SB (including ANCs and Indian tribes), VOSB, SDVOSB, HUBZone, SDB (including ANCs and Indian tribes), and WOSB concerns and award subcontracts to them. The records shall include at least the following (on a plant-wide or company-wide basis, unless otherwise indicated):

1. Source lists (e.g., SAM), guides, and other data that identify SB (including ANCs and Indian tribes), VOSB, SDVOSB, HUBZone, SDB (including ANCs and Indian tribes), and WOSB concerns.
2. Organizations contacted in an attempt to locate sources that are SB (including ANCs and Indian tribes), VOSB, SDVOSB, HUBZone, SDB (including ANCs and Indian tribes), and WOSB concerns.
3. Records on each subcontract solicitation resulting in an award of more than the simplified acquisition threshold as defined in FAR 2.101 as of the date of the subcontract award, indicating:
 - (A) Whether small business concerns were solicited and, if not, why not;
 - (B) Whether veteran-owned small business concerns were solicited and, if not, why not;
 - (C) Whether service-disabled veteran-owned small business concerns were solicited and, if not, why not;
 - (D) Whether HUBZone small business concerns were solicited and, if not, why not;
 - (E) Whether small disadvantaged business concerns were solicited and, if not, why not;
 - (F) Whether women-owned small business concerns were solicited and, if not, why not; and
 - (G) If applicable, the reason award was not made to a small business concern.

²³ The dates listed are considered "no later than". Thus, the ISRs must be submitted to the LCO no later than these dates, April 30 and October 30, respectively, and the SSR must be entered into the eSRS system no later than October 30 each year

4. Records of any outreach efforts to contact
 - (A) Trade associations;
 - (B) Business development organizations;
 - (C) Conferences and trade fairs to locate small, HUBZone small, small disadvantaged, and women-owned small business sources; and
 - (D) Veterans service organizations
5. Records of internal guidance and encouragement provided to buyers through
 - (A) Workshops, seminars, training, etc.; and,
 - (B) Monitoring performance to evaluate compliance with the program's requirements.
6. On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor. **Contractors having commercial plans need not comply with this requirement.**
7. Other records to support your compliance with the subcontracting plan: *(Please describe below.)*
N/A

XIV. ADDITIONAL ASSURANCES:

1. **PS Business Parks, Inc.** will make a good faith effort to acquire articles, equipment, supplies, services, or materials, or obtain the performance of construction work from the small business concerns that it used in preparing the bid or proposal, in the same or greater scope, amount, and quality used in preparing and submitting the bid or proposal.
2. **PS Business Parks, Inc.** will provide the Lease Contracting Officer with a written explanation if the lessor fails to acquire articles, equipment, supplies, services or materials or obtain the performance of construction work as described in (d)(12) of FAR clause 52.219-9. This written explanation must be submitted to the Lease Contracting Officer within 30 days of contract completion.
3. **PS Business Parks, Inc.** will not prohibit a subcontractor from discussing with the Lease Contracting Officer any material matter pertaining to the payment to or utilization of a subcontractor.
4. **PS Business Parks, Inc.** assures that the offeror will pay its small business subcontractors on time and in accordance with the terms and conditions of the subcontract, and notify the contracting officer if **PS Business Parks, Inc.** pays a reduced or an untimely payment to a small business subcontractor (see FAR clause 52.242-5).

XV. COMMITMENT TO MAKE A GOOD FAITH EFFORT²⁴ (Also refer to 13 CFR 125.3(d), Determination of Good Faith Effort)

In order to demonstrate your compliance with a good faith effort to achieve the small business subcontracting goals, outline the steps below that your company plans to take.

PS Business Parks, Inc. will take the following steps to demonstrate compliance with a good faith effort in achieving small business subcontracting goals:

Will routinely check the status of existing contracting conditions to ensure we are meeting/exceeding goals set forth in this plan

The above requirements will be negotiated with the Lease Contracting Officer prior to approval. The Lease Contracting Officer must ensure per FAR 19.705-5(a)(5) that an acceptable plan is incorporated into and made a material part of the contract.

XVI. STATUTORY REQUIREMENTS (FAR 19.702 and FAR clause 52.219-9(c))

The undersigned recognizes the statutory requirements for a subcontracting plan. The subcontracting plan will be negotiated with the Contracting Officer in the time specified. The plan must be approved prior to contract award, option exercise, or renewal. The Contracting Officer must ensure per FAR 19.705-5(a)(5) that an acceptable plan is incorporated into and made a material part of the contract. Failure to submit and negotiate the subcontracting plan shall make the Offeror ineligible for award of a contract.

As stated in 15 U.S.C. 637(d)(8) as implemented under FAR 52.219-16, *Liquidated damages*, any contractor or subcontractor failing to comply in good faith with the requirements an approved subcontracting plan required by the clause of the contract "Utilization of Small Business Concerns" shall be a **material breach of the contract and may be considered in any past performance evaluation of the Contractor**. Further, 15 U.S.C. 637(d)(4)(F) directs that a contractor's **failure to make a good faith effort to comply with the requirements of the subcontracting plan shall result in the imposition of liquidated damages**.

²⁴ Defined in SBA regulations 13 CFR 125.3(d)(3)

SIGNATURE REQUIRED: *Plan must be signed and dated by a company official.*

SUBMITTED by: **PS Business Parks, Inc.**

Signature:

(b) (6)

Typed Name:

EDUARDO V. ZAPATA

Company Title:

REGIONAL VP

Date Signed:

28- APRIL 2022

Government Lease Contracting Officer APPROVAL²⁵:

Signature:

(b) (6)

Printed Name:

Santoni W. Graham

Agency:

General Services Administration

Date Signed:

5/3/2022

²⁵ Contracting officer may indicate their approval by signing the plan, although not required. Approval is indicated when the negotiated subcontracting plan becomes a material part of the lease usually as an Exhibit upon award as required by FAR 19.705-5(a)(5) and FAR clause 52.219-9(c)(1).

Exhibit H - FAR 52.204-24

Representation Regarding Certain Telecommunications and Video Surveillance Services or Equipment

See instructions within the representation regarding whether or not completion of this form is required. If required, complete appropriate boxes, sign the form, and return form, along with any other required disclosure information, to LCO or his/her designee.

NOTE: The "Offeror," as used on this form, is the owner of the property offered, not an individual or agent representing the owner.

52.204-24 Representation Regarding Certain Telecommunications and Video Surveillance Services or Equipment (OCT 2020)

The Offeror shall not complete the representation at paragraph (d)(1) of this provision if the Offeror has represented that it "does not provide covered telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument" in paragraph (c)(1) in the provision at 52.204-26, Covered Telecommunications Equipment or Services—Representation, or in paragraph (v)(2)(i) of the provision at 52.212-3, Offeror Representations and Certifications-Commercial Items. The Offeror shall not complete the representation in paragraph (d)(2) of this provision if the Offeror has represented that it "does not use covered telecommunications equipment or services, or any equipment, system, or service that uses covered telecommunications equipment or services" in paragraph (c)(2) of the provision at 52.204-26, or in paragraph (v)(2)(ii) of the provision at 52.212-3.

(a) *Definitions.* As used in this provision—

Backhaul, covered telecommunications equipment or services, critical technology, interconnection arrangements, reasonable inquiry, roaming, and substantial or essential component have the meanings provided in the clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

(b) *Prohibition.*

(1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. Nothing in the prohibition shall be construed to—

(i) Prohibit the head of an executive agency from procuring with an entity to provide a service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(b) (6)

(ii) Cover telecommunications equipment that cannot route or redirect user data traffic or cannot permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into a contract or extending or renewing a contract with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract. Nothing in the prohibition shall be construed to—

(i) Prohibit the head of an executive agency from procuring with an entity to provide a service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(ii) Cover telecommunications equipment that cannot route or redirect user data traffic or cannot permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(c) *Procedures.* The Offeror shall review the list of excluded parties in the System for Award Management (SAM) (<https://www.sam.gov>) for entities excluded from receiving federal awards for “covered telecommunications equipment or services”.

(d) *Representation.* The Offeror represents that—

(1) It ☐ will, ☒ will not provide covered telecommunications equipment or services to the Government in the performance of any contract, subcontract or other contractual instrument resulting from this solicitation. The Offeror shall provide the additional disclosure information required at paragraph (e)(1) of this section if the Offeror responds “will” in paragraph (d)(1) of this section; and

(2) After conducting a reasonable inquiry, for purposes of this representation, the Offeror represents that—

It ☐ does, ☒ does not use covered telecommunications equipment or services, or use any equipment, system, or service that uses covered telecommunications equipment or services. The Offeror shall provide the additional disclosure information required at paragraph (e)(2) of this section if the Offeror responds “does” in paragraph (d)(2) of this section.

(e) *Disclosures.* (1) Disclosure for the representation in paragraph (d)(1) of this provision. If the Offeror has responded “will” in the representation in paragraph (d)(1) of this provision, the Offeror shall provide the following information as part of the offer:

(i) For covered equipment —

(b) (6)

(A) The entity that produced the covered telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the original equipment manufacturer (OEM) or a distributor, if known);

(B) A description of all covered telecommunications equipment offered (include brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); and

(C) Explanation of the proposed use of covered telecommunications equipment and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(1) of this provision.

(ii) For covered services—

(A) If the service is related to item maintenance: A description of all covered telecommunications services offered (include on the item being maintained: Brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); or

(B) If not associated with maintenance, the Product Service Code (PSC) of the service being provided; and explanation of the proposed use of covered telecommunications services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(1) of this provision.

(2) Disclosure for the representation in paragraph (d)(2) of this provision. If the Offeror has responded “does” in the representation in paragraph (d)(2) of this provision, the Offeror shall provide the following information as part of the offer:

(i) For covered equipment —

(A) The entity that produced the covered telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the OEM or a distributor, if known);

(B) A description of all covered telecommunications equipment offered (include brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); and

(C) Explanation of the proposed use of covered telecommunications equipment and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(2) of this provision.

(ii) For covered services—

(A) If the service is related to item maintenance: A description of all covered telecommunications services offered (include on the item being maintained: Brand; model

number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); or

(B) If not associated with maintenance, the PSC of the service being provided; and explanation of the proposed use of covered telecommunications services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(2) of this provision.

(End of provision)

OFFEROR OR LEGALLY AUTHORIZED REPRESENTATIVE	NAME, ADDRESS (INCLUDING ZIP CODE) PS BUSINESS PARKS, LP 7927 JONES BRANCH RD, STE 1300 MCLEAN, VA 22102 EDWARD V. ZAPATA REGIONAL VP	TELEPHONE NUMBER 703-407-1180
	(b) (6) Signature	1/11/22 Date

(b) (6)

LESSOR'S ANNUAL COST STATEMENT
Important - Read attached "Instructions"
OMB Control Number: 3090-0086
Expiration Date: 11/30/2019

TEST - AAP Registration, Site Guest User, 00e80000001SbJvAAK

Paperwork Reduction Act Statement - This information collection meets the requirements of 44 U.S.C. 5 3507, as amended by section 2 of the Paperwork Reduction Act of 1995. You do not need to answer these questions unless we display a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 3090-0086. We estimate that it will take 2 hours to read the instructions, gather the facts, and answer the questions. Send only comments relating to our time estimate, including suggestions for reducing this burden, or any other aspects of this collection of information to: U.S. General Services Administration, Regulatory Secretariat Division (MI VI CB), 1800 F Street, NW, Washington, DC 20405.

1. Request for Lease Proposals (RLP)
0VA2531

2. Statement Date
1/11/2022

3. Rental Area (Square Feet)

3A. Entire Building
69897

3B. Leased by Government
69897.00

4. Building Name and Address (Number, Street, City, State, and Zip Code)

8380 Alban Road
8380 Alban Road
Springfield, Virginia
221502338

**SECTION I - ESTIMATED ANNUAL COST OF SERVICES AND UTILITIES
FURNISHED BY LESSOR AS PART OF RENTAL CONSIDERATION**

SERVICES AND UTILITIES	LESSOR'S ANNUAL COST FOR		FOR GOVERNMENT USE ONLY
	(a) Entire Building	(b) Government-Leased Area	
A. CLEANING, JANITOR AND/OR CHAR SERVICE			
5. Salaries	(b) (4)		
6. Supplies (Wax, cleaners, cloths, etc.)	(b) (4)		
7. Contract Services (Window washing, waste and snow removal)	(b) (4)		
B. HEATING			
8. Salaries	(b) (4)		
9. Fuel ("X" one) <input type="checkbox"/> Oil <input type="checkbox"/> Gas <input type="checkbox"/> Coal <input type="checkbox"/> Electric	(b) (4)		
10. System Maintenance and Repair	(b) (4)		
C. ELECTRICAL			
11. Current for Light and Power	(b) (4)		
12. Replacement of Bulbs, Tubes, Starters	(b) (4)		
13. Power for Special Equipment	(b) (4)	(b) (4)	
14. System Maintenance and Repair (Ballasts, Fixtures, etc.)	(b) (4)		
D. PLUMBING			
15. Water (For all purposes) (Include Sewage Charges)	(b) (4)		
16. Supplies (Soap, towels, tissues not in 6 above)	(b) (4)		
17. System Maintenance and Repair	(b) (4)		
E. AIR CONDITIONING			
18. Utilities (Include electricity, if not in C11)	(b) (4)		
19. System Maintenance and Repair	(b) (4)		
F. ELEVATORS			
20. Salaries (Operators, starters, etc.)	(b) (4)		
21. System Maintenance and Repair	\$(b) (4)		

GENERAL SERVICES ADMINISTRATION

GSA 1217 (REV. 11/2016) Page 1

G. MISCELLANEOUS (To the extent not included on Page 1)			
22. Building Engineer and/or Manager	(b) (4)		
23. Security (Watchperson, guards, not janitors)	(b) (4)		
24. Social Security Tax and Workperson's Compensation Insurance	(b) (4)		.00
25. Lawn and Landscaping Maintenance	(b) (4)		.00
26. Other (Explain on separate sheet)	(b) (4)		
27. TOTAL	(b) (4)		\$

SECTION II - ESTIMATED ANNUAL COST OF OWNERSHIP EXCLUSIVE OF CAPITAL CHARGES

28. Real Estate Taxes	(b) (4)		
29. Insurance (Hazard, Liability, etc.)	(b) (4)		
30. Building Maintenance and Reserves for Replacement	(b) (4)	(b) (4)	
31. Lease Commission	(b) (4)		
32. Management	(b) (4)		
33. TOTAL	(b) (4)		\$

LESSOR'S CERTIFICATION - The amounts entered in Columns (a) and (b) represent my best estimate as to the annual costs of services, utilities, and ownership.

34. Signature of: ☐ Owner ☒ Legal agent

TYPED NAME AND TITLE	SIGNATURE	DATE
34A. Chloe Edwards	34B. <i>Chloe Edwards</i>	34C. 1/11/2022
35A.	35B.	35C.

INSTRUCTIONS

In acquiring space by lease, it is the established policy of GSA to enter into leases only at rental charges which are consistent with prevailing scales in the community for facilities.

ITEM NUMBER

1. Enter the Government lease or Request for Lease Proposals (RLP) number, if available.
2. Enter the date that your statement was prepared and signed.
3. A. Enter in this block a computation of the rentable area (multiple tenancy basis) for the entire building. The rentable area shall be computed by measurement to the inside finish of permanent outer building walls to the inside finish of corridor walls (actual or proposed) or to other permanent partitions, or both. Rentable space is the area for which a tenant is charged rent. It is determined by the building owner and may vary by city or by building within the same city. The rentable space may include a share of building support/common areas such as elevator lobbies, building corridors, and floor service areas. Floor services areas typically include restrooms, janitor rooms, telephone closets, electrical closets, and mechanical rooms. The rentable space generally does not include the vertical building penetrations and their enclosing walls, such as stairs, elevator shafts, and vertical ducts.
3. B. Enter in this block a computation of the rentable area to be rented to the Government. For this area, follow the procedure as outlined above, except that measurements are to be made only to the center of the partitions which separate the area to be rented by the Government from adjoining rented or rentable areas.
4. Identify the property by name and address.

SECTION I

ESTIMATED ANNUAL COST OF SERVICES AND UTILITIES

5. - 26. The services and utilities listed in this section are required in most of our rented space whether furnished by the Government or the Lessor.

Carefully review the Request for Lease Proposals (RLP) and/or the proposed lease to identify those services and utilities to be furnished by you as part of the rental consideration. Then enter your best cost estimate, or the actual cost from the previous year, for each of these services and utilities in column (a) for the entire building and in column (b) for the area to be rented to the Government. If any service or utility furnished for the space rented by the Government is not furnished throughout the building, or the cost of a service or utility furnished to the Government space exceeds the cost of the same service or utility furnished to other rented space, explain on a separate sheet. For convenience, each major category has been divided into separate items such as salaries and supplies so that they may be entered when applicable. However, in the event that your records are not maintained for each item contained in Section I, 5 through 26, the total for a major category (A through F) may be entered under the category heading in columns (a) and (b) in lieu of the specific items. System maintenance and repairs includes the annual cost of such items as oiling, inspecting, cleaning, regulating, and routine replacement costs.

SECTION II

ESTIMATED ANNUAL COST OF OWNERSHIP EXCLUSIVE OF CAPITAL CHARGES

Items 28 through 32 will be useful in the Government's determination of the fair market value of the space to be rented and shall be completed irrespective of whether Section I is applicable, as follows:

28. Include all applicable real estate taxes imposed upon the property.
29. Enter the annual cost of fire, liability, and other insurance carried on the real estate.
30. Enter the annual cost of wages, materials, and outside services used in repairs and maintenance of the building itself and all similar repairs and maintenance of the building itself and all similar repairs and maintenance costs not included in Section I above (Heating, Electrical, Plumbing, Air Conditioning, and Elevators). This includes major repairs and changes in the nature of a permanent improvement such as annual cost to replace relatively short-lived items such as boiler, compressors, elevators, and roof coverings.
31. Enter any lease commission which you may be responsible for due to the Government leasing action.
32. Include administrative expenses such as agency fees, legal fees, auditing, and advertising. Do not include financial charges such as income or corporate taxes or organization expense.
34. - 35. Complete Lessor certification.